



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

DEC 31 2013

SPECIAL NOTICE LETTER -- URGENT LEGAL MATTER

PROMPT REPLY NECESSARY, CERTIFIED MAIL: 7010 2780 0002 4354 8245

RETURN RECEIPT REQUESTED

Chintan K. Amin
Senior Counsel
Bayer Corporation
Pittsburgh, Pennsylvania 15241

Re: Cedar Chemical Corporation Superfund Site, West Helena, Phillips County, Arkansas
Request that you fund or perform RI/FS and reimbursement of costs
Special Notice: Please respond with a good-faith offer within 60 days

Dear Sir/Madam:

The purpose of this letter is to invite Bayer Corporation as a Potentially Responsible Party (PRP) to enter into negotiations with the U.S. Environmental Protection Agency (EPA) to undertake a Remedial Investigation and Feasibility Study (RI/FS) regarding hazardous substance contamination at the Cedar Chemical Corporation Superfund Site in West Helena, Phillips County, Arkansas (Site). The EPA has determined that there is a release or a substantial threat of a release of hazardous substance(s) at or from the Site and has identified numerous parties as owner/operator or an arranger/generator who shipped hazardous substances to the Site. The EPA has determined that there is contamination in the ground at the Site. According to copies of deed records and toll manufacturing agreements, you generated or shipped material containing a hazardous substance to the Site. Based on your status as an arranger/generator or transporter, the EPA has determined that you are potentially liable under Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), 42 U.S.C. § 9607(a), and are responsible for the cleanup of the Site, including all past costs incurred by the EPA in responding to releases at the Site. The EPA is now contacting you and each PRP to offer an opportunity to enter into negotiations to perform the selected response and resolve the liability for the Site.

Opportunity to Negotiate

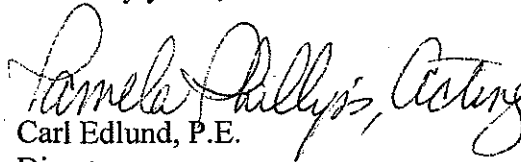
On behalf of the EPA, I am offering you this opportunity to enter into negotiations because the EPA believes that Bayer Corporation may be responsible for the cleanup of the Site under the Superfund Law. I have enclosed a "special notice" which explains that responsibility more clearly in Enclosure 1. This notice also explains the purpose of the enclosed Draft Administrative Order on Consent in Enclosure 2 and the enclosed Draft Statement of Work, which is Enclosure 3. A summary of past costs can be found in Enclosure 4. A list of all parties receiving this letter is contained in Enclosure 5. Enclosure 6 includes one document as an example showing evidence that you sent hazardous substances to the Cedar Chemical Corporation Superfund Site.

Within fourteen (14) days of the receipt of this letter, I ask you to contact the EPA Superfund Cost Recovery Enforcement Officer, Mr. Lance Nixon at (214) 665-2203 or nixon.lance@epa.gov, or have your attorney contact the EPA Assistant Regional Counsel, Marvin Benton, at (214) 665-3190 or benton.marvin@epa.gov, and let the EPA know whether you plan to enter into on-going, good-faith negotiations to enter into a settlement agreement with the EPA to perform a Remedial Investigation and Feasibility Study at the Site.

My staff will be available to explain the Superfund program and special notice process to you and respond to any concerns and questions you may have. If you or your attorney have legal questions, please call Mr. Benton at (214) 665-3190. If you have technical questions about the Site, please contact the Remedial Project Manager, Mr. Philip Allen, at (214) 665-8516. If you have any other questions, please contact Mr. Nixon at the number above.

We look forward to working with you during the coming months.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Carl Edlund", is written over the typed name.

Carl Edlund, P.E.

Director

Superfund Division

Enclosures (6)

ENCLOSURE 1

ENCLOSURE 1

SPECIAL NOTICE REGARDING REMEDIAL INVESTIGATION AND FEASIBILITY STUDY CEDAR CHEMICAL CORPORATION SUPERFUND SITE WEST HELENA, PHILLIPS COUNTY, ARKANSAS

This Special Notice is from the U.S. Environmental Protection Agency (EPA). This notice says you may be liable for the costs of the cleanup of hazardous substances released into the environment at the Cedar Chemical Corporation (CCC) Superfund Site (Site) which is located in West Helena, Phillips County, Arkansas.

This notice provides you with information in four categories:

1. First, this notice tells you that you may be liable for the cleanup of hazardous substances, including acetic acid, benzoic acid, carbon tetrachloride, butyl amine, copper, copper cyanide, and sodium cyanide, at the Cedar Chemical Corporation Superfund Site (Site). This notice is issued under the Comprehensive Environmental Response, Compensation, and Liability Act, which is abbreviated as "CERCLA." CERCLA is also known as Superfund.
2. Second, this notice asks you to pay certain costs and/or to finance or perform a Remedial Investigation and Feasibility Study (RI/FS) regarding the hazardous substance contamination on the Site under a settlement agreement with the EPA. The purpose of the Remedial Investigation is to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at or from the Site. The purpose of the Feasibility Study is to determine and evaluate alternatives for remedial action to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site.
3. Third, this notice requests that you respond within 14 days from your receipt of this notice on whether you wish to be added to the on-going negotiations to enter into a settlement to conduct or finance the RI/FS.
4. Fourth, this notice explains that the EPA will consider any party's ability to pay in determining an appropriate settlement amount and/or performance of the RI/FS.

BACKGROUND

The Site is a former specialty chemical manufacturing facility located on about 48 acres of property at West Helena, Arkansas. Its business address is 49 Phillips Road. The Site is bounded by Arkansas Highway 242 to the northwest, the Union Pacific Railway to the northeast, and other industrial park properties to the southeast and southwest. Residential areas are located within one half mile southwest and northeast of the Site. The Site consists of six separate processing units, laboratories, a finished goods warehouse, a storm water pond, a wastewater treatment plant, a warehouse and various other buildings. The Site was originally constructed in 1970 as a Propanil manufacturing facility by the Helena Chemical Company. The Site was owned and operated by Cedar Chemical Corporation from approximately 1986 until October 2002. Environmental issues associated with the Site included abandoned chemicals, buried drums, a constructed drum vault filled with unknown chemicals, ground water contamination, surface and subsurface soil contamination, and an abandoned storm water and wastewater treatment system. There were a number of hazardous chemicals present at the Site. These substances included, but were not limited to, acetic acid, benzoic acid, carbon tetrachloride, butyl amine, copper, copper cyanide, and sodium cyanide.

I. NOTICE THAT YOU MAY BE LIABLE

CERCLA says that four types of persons (entities) are liable for cleaning up (or paying the EPA to clean up) hazardous substances that have been released. The four types of liable persons are:

1. Persons who now own the place where the hazardous substance was released;
2. Persons who once owned or operated the place where the hazardous substance was released during the time when the hazardous substance was disposed of;
3. Persons who arranged for disposal or treatment of hazardous substances at the place where the hazardous substance was released; or
4. Persons who selected the place where the hazardous substance was released as a disposal site and transported the hazardous substances to that place.

The EPA's term for these persons is Potentially Responsible Parties or PRPs.

You may want to read the section of the CERCLA law, which tells which persons are liable for the cost of cleaning up hazardous substances. CERCLA can be found in Title 42 of the United States Code (U.S.C.) in Sections 9601 through 9675. The part of CERCLA which tells about these responsible parties can be found at Section 9607. Definitions of terms used in CERCLA can be found in Section 9601. Section 9607 is sometimes called Section 107, the section number which it has in the act of Congress.

Records which we have on hand indicate that you generated or transported hazardous substances to the Cedar Chemical Corporation Superfund Site. Accordingly, you may be a potentially responsible party (PRP) under the Superfund law. The EPA invites you to take stock of the evidence and to enter into the enclosed AOC for RI/FS on the Site in order to settle your liability with the EPA with respect to this matter.

II NEGOTIATION PERIOD AND MORATORIUM REGARDING CERTAIN ACTIVITY AT THE SITE

The EPA has determined that use of the special notice procedures specified in CERCLA Section 122(e), 42 U.S.C. § 9622(e), may facilitate a settlement between the EPA and the PRPs the EPA has thus far identified. Therefore, pursuant to CERCLA Section 122(e)(2)(C), 42 U.S.C. § 9622(e)(2)(C), this notice offers you the opportunity to negotiate a settlement, to conduct an RI/FS at the Site. The settlement will provide for you and other PRPs to: (1) conduct or finance the RI/FS activities required for the Site, and (2) reimburse the EPA for costs to be incurred in overseeing the PRPs' performance of the RI/FS.

If settlement is reached between the EPA and the PRPs, the settlement will be embodied in an AOC to be issued by the Superfund Division Director, EPA Region 6.

A draft AOC, written specifically for the Site, and a draft Statement of Work (SOW) for the RI/FS activities are enclosed (Enclosure 2 and 3, respectively). An electronic version of the draft AOC and SOW may be obtained from EPA Assistant Regional Counsel Mr. Marvin Benton at (214) 665-3190.

III PLEASE RESPOND WITHIN 14 DAYS OF YOUR RECEIPT OF THIS LETTER

Please use the enclosed draft AOC and draft SOW to assist you in determining whether you wish to negotiate a settlement to conduct the RI/FS and for reimbursing the EPA for future oversight costs. Please provide in writing a statement that you are willing to negotiate the performance and/or financing of the RI/FS in a manner consistent with the EPA's draft SOW and draft AOC and that you are also willing to negotiate the means to reimburse the EPA for response costs to be incurred in overseeing the PRPs performance of the RI/FS.

If the EPA determines that you have not submitted a statement within the 14-day period, the EPA may, thereafter, terminate its offer inviting you to the negotiation moratorium period pursuant to Subsection 122(e)(4) of CERCLA, 42 U.S.C. § 9622(e)(4), and commence such response activities or enforcement actions as may be appropriate.

Please mail, fax or email your statement to Mr. Marvin Benton at the following address:

Marvin Benton
Assistant Regional Counsel (6RC-S)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, TX 75202-2733
(214) 665-3190
FAX (214) 665-6460
E-mail: benton.marving@epa.gov

ENCLOSURE 2

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6

IN THE MATTER OF:
Cedar Chemical SUPERFUND SITE
West Helena, Phillips County, Arkansas

ADMINISTRATIVE ORDER ON
CONSENT FOR REMEDIAL
INVESTIGATION/FEASIBILITY STUDY

See Appendix A for List of Respondents,
Respondents

U.S. EPA Region 6
CERCLA Docket No. _____

Proceeding Under Sections 104, 107 and
122 of the Comprehensive Environmental
Response, Compensation, and Liability Act,
as amended, 42 U.S.C. §§ 9604, 9607 and
9622.

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT
FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and the Respondents listed in Appendix A, incorporated by reference herein ("Respondents"). The Settlement Agreement concerns the preparation and performance of a remedial investigation and feasibility study ("RI/FS") at the Cedar Chemical Superfund Site ("Site"), located at 49 Phillips Road, West Helena, Phillips County, Arkansas and the reimbursement for future response costs incurred by EPA in connection with the RI/FS.

2. This Settlement Agreement and Order on Consent is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607 and 9622 ("CERCLA"). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further redelegated by the Regional Administrator of EPA Region 6 to the Superfund Division Director by (insert the numerical designations and dates of regional delegation).

3. In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), EPA notified the Federal and State natural resource trustees on

_____, 2012, of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under Federal and State trusteeship.

4. EPA and Respondents recognize that this Settlement Agreement and Order on Consent has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Order do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement and Order on Consent, the validity of the findings of fact, conclusions of law and determinations in Sections V and VI of this Settlement Agreement and Order on Consent. Respondents agree to comply with and be bound by the terms of this Order and further agree that they will not contest the basis or validity of this Settlement Agreement and Order on Consent or its terms.

II. PARTIES BOUND

5. This Settlement Agreement and Order on Consent applies to and is binding upon EPA and upon Respondents and their heirs, successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement and Order on Consent. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement and Order on Consent, the remaining Respondents shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and Order on Consent and comply with this Settlement Agreement and Order on Consent. Respondents shall be responsible for any noncompliance with this Settlement Agreement and Order on Consent.

8. Each undersigned representative of Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and Order on Consent and to execute and legally bind Respondents to this Settlement Agreement and Order on Consent.

III. STATEMENT OF PURPOSE

9. In entering into this Settlement Agreement and Order on Consent, the objectives of EPA and Respondents are: (a) to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at or from the Site, by conducting a Remedial Investigation as more specifically set forth in the Statement of Work ("SOW") attached as Appendix B to this Settlement Agreement and Order on Consent; (b) to identify and evaluate

remedial alternatives to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site, by conducting a Feasibility Study as more specifically set forth in the SOW in Appendix B to this Order; and (c) to recover response and oversight costs incurred by EPA with respect to this Order.

10. The Work conducted under this Settlement Agreement and Order on Consent is subject to approval by EPA and shall provide all appropriate and necessary information to assess Site conditions and evaluate alternatives to the extent necessary to select a remedy that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300 ("NCP"). Respondents shall conduct all Work under this Settlement Agreement and Order on Consent in compliance with CERCLA, the NCP, and all applicable EPA guidances, policies, and procedures.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Settlement Agreement and Order on Consent that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement and Order on Consent or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

b. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall be the effective date of this Order as provided in Section XXIX.

d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

e. "Texas Commission on Environmental Quality" shall mean the State pollution control agency and any successor departments or agencies of the State.

f. "Engineering Controls" shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

g. "Future Response Costs" shall mean all costs, including, but not limited to,

direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, Agency for Toxic Substances and Disease Registry ("ATSDR") costs, the costs incurred pursuant to Paragraph 54 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 40 (emergency response), and Paragraph 84 (Work takeover)".

h. "Institutional controls" shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and covenants, zoning restrictions, special building permit requirements, and well drilling prohibitions.

i. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

j. "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

k. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent, the SOW, all appendices attached hereto (listed in Section XXVII) and all documents incorporated by reference into this document including without limitation EPA-approved submissions. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Settlement Agreement upon approval by EPA. In the event of conflict between this Settlement Agreement and any appendix or other incorporated documents, this Settlement Agreement shall control.

l. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

m. "Parties" shall mean EPA and Respondents.

n. "RCRA" shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.*

o. "Respondents" shall mean those Parties identified in Appendix A.

p. "Section" shall mean a portion of this Order identified by a Roman numeral.

q. "Site" shall mean the Cedar Chemical Corporation Superfund Site, encompassing approximately 48 acres, located at 49 Phillips Road, West Helena, Phillips

County, Arkansas and depicted generally on the map attached as Appendix C.

r. "State" shall mean the State of Arkansas.

s. "Statement of Work" or "SOW" shall mean the Statement of Work for development of a RI/FS for the Site, as set forth in Appendix B to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order as are any modifications made thereto in accordance with this Order.

t. "Waste Material" shall mean (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

u. "Work" shall mean all activities Respondents are required to perform under this Order, except those required by Section XIV (Retention of Records).

V. FINDINGS OF FACT

12. The Cedar Chemical Superfund site is located in Phillips County, Arkansas, south of West Helena. The site consists 48 acres along State Highway 242, 1 mile southwest of the intersection of U.S. Highway 49 and Highway 242. The site is in the Helena-West Helena Industrial Park, and includes six former production units, support facilities and an office on the north side of Industrial Park Road. A biological treatment system is located south of Industrial Park Road, Arkansas Highway 242 to the northwest, a Union Pacific railway to the northeast, and other industrial park properties to the southeast and southwest bound the site.

13. The Facility was initially operated by Helena Chemical in 1970. The Facility was purchased by Eagle River Chemical and was operated for approximately 18 months by Ansul under the name of Eagle River Chemical. During this time period, dinoseb was produced on the site. From 1971 to 2002, the facility manufactured or processed a variety of agricultural and organic chemicals under various owners and operators. The last owner of record was Cedar Chemical Corporation. On March 8, 2002, Cedar Chemical Corporation filed for bankruptcy. Manufacturing and plant operations were shut down shortly thereafter. The Arkansas Department of Environmental Quality (ADEQ) assumed control of the facility on October 12, 2002, and currently acts as the caretaker of the facility.

14. Hazardous substances detected in soils at concentrations greater than risk-based screening criteria include Arsenic, Cadmium, Mercury, Aldrin, Dieldrin, Dinoseb, Heptachlor, Methoxychlor, Toxaphene, 3,4-Dichloroaniline, Propanil, Chloroform, 1,2-Dichloroethane, Methylene Chloride, and Pentachlorophenol. Hazardous substances detected in groundwater at concentrations greater than risk-based screening criteria and/or Maximum Contaminant Levels (MCLs) include Arsenic, Barium, Cadmium, Chromium, Lead, 4,4'-DDT, Alpha BHC, Aniline, 4-Chloroaniline, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, Chloroethane, 1,4-Dichlorobenzene, 2,6-Dinitrotoluene, 3,4-Dichloroaniline, 4-Chloroaniline, Dinoseb, bis(2-

Chloroethyl)ether, bis(2-Ethylhexyl) phthalate, 1,2-Dichloroethane, 4Methyl-2-Pentanone, 2-Methylphenol, Acetone, Benzene, Chloroform, Vinyl Chloride, Methylene Chloride, Trichloroethene, 1,1,2Trichloroethane, 1,2-Dichloropropane, Bromodichloromethane, Bromoform, Dibromochloromethane, and Toluene.

In summary, the surface soils and subsurface soils are contaminated with pesticides, volatile organics, and heavy metals. The onsite surface water bodies and groundwater are contaminated with volatile organics and heavy metals. The sediments are contaminated with pesticides and heavy metals. Eighty (80) Solid Waste Management Units (SWMUs) (including approx. 30 sumps and 10 drum/drum storage/drum crushing areas) have been identified onsite to date that are deemed areas of concern.

15. Site investigations have concluded significant impacts to surface soils, subsurface soils, surface water and groundwater. The chemicals used onsite in the processes included volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and metals. These constituents have been detected in the respective media in concentrations greater than background. The levels detected are at concentrations that could continue to contribute to groundwater contamination and at levels which could pose an unacceptable risk to human health and/or the environment under various exposure scenarios.

16. The EPA has not selected a remedy for the site. A public notice announcing the proposal of the Cedar Chemical site for inclusion on the National Priorities List (NPL) was published on April 10, 2012 and again on April 13, 2012. A second public notice was published on September 14, 2012, announcing the inclusion of the Cedar Chemical site on the NPL. Both of the publications were placed in The Helena World.

17. The Environmental Protection Agency (EPA) is in the process of conducting enforcement actions, to identify and notify Potentially Responsible Parties (PRPs) of their obligation to perform cleanup investigations and actions to.

18. The Site was listed on the National Priorities List ("NPL") pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on September 14, 2012.

19. The list of Respondents in Appendix A numbered 1 through 9 sent, transported or arranged to have sent or transported waste material containing hazardous substances found at the Site for disposal or treatment at the Site while it was owned and/or operated by the Cedar Chemical Corporation.

20. The list of Respondents in Appendix A numbered 10 and 11 previously owned and/or operated one or more of the properties within the Site at the time hazardous substances were released.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, EPA has determined that:

21. The Cedar Chemical Superfund Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

22. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

23. The conditions described in Section V of the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

24. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

25. Respondents are responsible parties under Sections 104, 107 and 122 of CERCLA, 42 U.S.C. §§ 9604, 9607 and 9622. Each Respondent is a person who either generated the hazardous substances found at the Site, is a person who at the time of disposal of any hazardous substances owned or operated the Site, or is a person who arranged for disposal or transport for disposal of hazardous substances at the Site. Each Respondent therefore may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

26. The actions required by this Order are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

27. EPA has determined that Respondents are qualified to conduct the RI/FS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondents comply with the terms of this Order.

VII. SETTLEMENT AGREEMENT AND ORDER

28. Based upon the foregoing Findings of Fact and Conclusions of Law and Determinations, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Order, including, but not limited to, all appendices to this Settlement Agreement and Order on Consent and all documents incorporated by reference into this Settlement Agreement and Order on Consent

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

29. Selection of Contractors, Personnel. All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within 30 days of the Effective Date of this Order, and before the Work outlined below begins, Respondents shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondents shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995, or most recent version), by submitting a copy of the proposed contractor's Quality Management Plan ("QMP"). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," (EPA/240/B-01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to EPA's review, for verification that such persons meet minimum technical background and experience requirements. If EPA disapproves in writing of any person's technical qualifications, Respondents shall notify EPA of the identity and qualifications of the replacements within 30 days of the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Order and to conduct a complete RI/FS, and to seek reimbursement for costs and penalties from Respondents. During the course of the RI/FS, Respondents shall notify EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

30. Within 30 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number and qualifications within 14 days following EPA's disapproval. Respondents shall have the right to change their Project Coordinator, subject to EPA's right to disapprove. Respondents shall notify EPA seven (7) days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondents.

31. EPA has designated Philip H. Allen, P.E. of the EPA Region 6 Superfund Division as its Remedial Project Manager ("RPM"). EPA will notify Respondents of a change of its designated RPM. Except as otherwise provided in this Order, Respondents shall direct all submissions required by this Order to the RPM at the US EPA Region 6, 6SF-RA, 1445 Ross

Ave., Dallas, TX 75202 or by electronic mail if so directed by the RPM.

32. EPA's RPM shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, EPA's RPM shall have the authority consistent with the NCP, to halt any Work required by this Order, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the EPA RPM from the area under study pursuant to this Order shall not be cause for the stoppage or delay of Work.

33. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of the RI/FS, as required by Section 104(a) of CERCLA, 42 U.S.C. Section 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of EPA, but not to modify the RI/FS Work Plan.

IX. WORK TO BE PERFORMED

34. Respondents shall conduct the RI/FS in accordance with the provisions of this Order, the SOW, CERCLA, the NCP and EPA guidance, including, but not limited to the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive # 9355.3-01, October 1988 or subsequently issued guidance), "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-05, October 1990 or subsequently issued guidance), and guidance referenced therein, and guidances referenced in the SOW, as may be amended or modified by EPA. The Remedial Investigation ("RI") shall consist of collecting data to characterize site conditions, determining the nature and extent of the contamination at or from the Site, assessing risk to human health and the environment and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered. The Feasibility Study ("FS") shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site. The alternatives evaluated must include, but shall not be limited to, the range of alternatives described in the NCP, and shall include remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, Respondents shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430(e) of the NCP, 40 C.F.R. § 300.430(e). Upon request by EPA, Respondents shall submit in electronic form all portions of any plan, report or other deliverable Respondents are required to submit pursuant to provisions of this Order.

35. Upon receipt of the draft Feasibility Study ("FS") report, the EPA will evaluate, as necessary, the estimates of the risk to the public and environment that are expected to remain after a particular remedial alternative has been completed and will evaluate the durability, reliability and effectiveness of any proposed Institutional Controls.

36. Modification of the RI/FS Work Plan.

- a. If at any time during the RI/FS process, Respondents identify a need for additional data, Respondents shall submit a memorandum documenting the need for additional data to the EPA RPM within fifteen (15) days of identification. The EPA in its discretion will determine whether the additional data will be collected by Respondents and whether it will be incorporated into plans, reports and other deliverables.
- b. In the event of unanticipated or changed circumstances at the Site, Respondents shall notify the EPA RPM by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In the event that the EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the RI/FS Work Plan, the EPA shall modify or amend the RI/FS Work Plan in writing accordingly. Respondents shall perform the RI/FS Work Plan as modified or amended.
- c. The EPA may determine that in addition to tasks defined in the initially approved RI/FS Work Plan, other additional Work may be necessary to accomplish the objectives of the RI/FS. Respondents agree to perform these response actions in addition to those required by the initially approved RI/FS Work Plan, including any approved modifications, if the EPA determines that such actions are necessary for a complete RI/FS.
- d. Respondents shall confirm their willingness to perform the additional Work in writing to the EPA within 7 days of receipt of the EPA request. If Respondents object to any modification determined by the EPA to be necessary pursuant to this Paragraph, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). The SOW and/or RI/FS Work Plan shall be modified in accordance with the final resolution of the dispute.
- e. Respondents shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by the EPA in a written modification to the RI/FS Work Plan or written RI/FS Work Plan supplement. The EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondents, and/or to seek any other appropriate relief.
- f. Nothing in this Paragraph shall be construed to limit the EPA's authority to require performance of further response actions at the Site.

37. Off-Site Shipment of Waste Material. Respondents shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the EPA's Designated Project Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

- a. Respondents shall include in the written notification the following information:
(1) the name and location of the facility to which the Waste Material is to be shipped: (2) the

type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

b. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the remedial investigation and feasibility study. Respondents shall provide the information required by Subparagraph 37.a and 37.c as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

c. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondents shall obtain the EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

38. Meetings. Respondents shall make presentations at, and participate in, meetings at the request of the EPA during the initiation, conduct, and completion of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at the EPA's discretion.

39. Progress Reports. In addition to the plans, reports and other deliverables set forth in this Order, Respondents shall provide to the EPA monthly progress reports by the ___th day of the following month. At a minimum, with respect to the preceding month, these progress reports shall (1) describe the actions which have been taken to comply with this Order during that month, (2) include all results of sampling and tests and all other data received by Respondents, (3) describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI/FS completion, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

40. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Settlement Agreement and Order on Consent, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the EPA Project Coordinator or, the Regional Duty

Officer at (866) 372-7745 of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and the EPA takes such action instead, Respondents shall reimburse the EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the EPA Project Coordinator, the OSC or Regional Duty Officer at (866) 372-7745 and the National Response Center at (800) 424-8802. Respondents shall submit a written report to the EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

X. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

41. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Order, in a notice to Respondents the EPA will: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, the EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within fifteen (15) days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

42. In the event of approval, approval upon conditions, or modification by the EPA, pursuant to Subparagraph 41(a), (b), (c) or (e), Respondents shall proceed to take any action required by the plan, report or other deliverable, as approved or modified by the EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XV (Dispute Resolution) with respect to the modifications or conditions made by the EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend such submission or portion thereof unless directed by the EPA. In the event that the EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 41(c) and the submission had a material defect, the EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties).

43. Resubmission.

a. Upon receipt of a notice of disapproval, Respondents shall, within fifteen (15) days or such longer time as specified by the EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVI, shall accrue during the 15-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or

modified due to a material defect as provided in Paragraphs 44 and 45.

b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by the EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. Respondents shall not proceed further with any subsequent activities or tasks until receiving EPA approval, approval on condition or modification of the following deliverables: RI/FS Work Plan and Sampling and Analysis Plan, Draft Remedial Investigation Report and Treatability Testing Work Plan and Sampling and Analysis Plan and Draft Feasibility Study Report. While awaiting EPA approval, approval on condition or modification of these deliverables, Respondents shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth under this Order.

d. For all remaining deliverables not listed above in subparagraph 43.c., Respondents shall proceed with all subsequent tasks, activities and deliverables without awaiting EPA approval on the submitted deliverable. The EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the RI/FS.

44. If the EPA disapproves a resubmitted plan, report or other deliverable, or portion thereof, the EPA may again direct Respondents to correct the deficiencies. The EPA shall also retain the right to modify or develop the plan, report or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified or developed by the EPA, subject only to Respondents' right to invoke the procedures set forth in Section XV (Dispute Resolution).

45. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by the EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and the EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by the EPA or superceded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If the EPA's disapproval or modification is not otherwise revoked, substantially modified or superceded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

46. In the event the EPA takes over some of the tasks, but not the preparation of the RI Report or the FS Report, Respondents shall incorporate and integrate information supplied by the

EPA into the final reports.

47. All plans, reports, and other deliverables submitted to the EPA under this Order shall, upon approval or modification by the EPA, be incorporated into and enforceable under this Order. In the event the EPA approves or modifies a portion of a plan, report, or other deliverable submitted to the EPA under this Order, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement and Order on Consent.

48. Neither failure of the EPA to expressly approve or disapprove of Respondents' submissions within a specified time period, nor the absence of comments, shall be construed as approval by the EPA. Whether or not the EPA gives express approval for Respondents' deliverables, Respondents are responsible for preparing deliverables acceptable to the EPA.

XI. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

49. Quality Assurance. Respondents shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the QAPP and guidances identified therein. Respondents will assure that field personnel used by Respondents are properly trained in the use of field equipment and in chain of custody procedures. Respondents shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

50. Sampling.

a. All results of sampling, tests, modeling or other data (including raw data) generated by Respondents, or on Respondents' behalf, during the period that this Order is effective, shall be submitted to the EPA in the next monthly progress report as described in Paragraph 39 of this Settlement Agreement and Order on Consent. The EPA will make available to Respondents validated data generated by the EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Respondents shall verbally notify the EPA at least seven (7) days prior to conducting significant field events as described in the SOW, RI/FS Work Plan or Sampling and Analysis Plan. At the EPA's verbal or written request, or the request of the EPA's oversight assistant, Respondents shall allow split or duplicate samples to be taken by the EPA (and its authorized representatives) of any samples collected in implementing this Order. All split samples of Respondents shall be analyzed by the methods identified in the QAPP.

51. Access to Information.

a. Respondents shall provide to the EPA, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to,

sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to the EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to the EPA under this Order to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by the EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to the EPA, or if the EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents shall segregate and clearly identify all documents or information submitted under this Order for which Respondents assert business confidentiality claims.

c. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide the EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

d. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

52. In entering into this Settlement Agreement and Order on Consent, Respondents waive any objections to any data gathered, generated, or evaluated by the EPA, the State or Respondents in the performance or oversight of the Work that has been verified according to the quality assurance/quality control ("QA/QC") procedures required by the Order or any EPA-approved RI/FS Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the RI/FS, Respondents shall submit to the EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to the EPA within 15 days of the monthly progress report containing the data.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

53. If the Site, or any other property where access is needed to implement this Order, is owned or controlled by any of Respondents, such Respondents shall, commencing on the Effective Date, provide the EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Order.

54. Where any action under this Settlement Agreement and Order on Consent is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 30 days after the Effective Date, or as otherwise specified in writing by the EPA Project Coordinator. Respondents shall immediately notify the EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. If Respondents cannot obtain access agreements, the EPA may either (i) obtain access for Respondents or assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as the EPA deems appropriate; (ii) perform those tasks or activities with EPA contractors; or (iii) terminate the Order. Respondents shall reimburse the EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs). If the EPA performs those tasks or activities with EPA contractors and does not terminate the Order, Respondents shall perform all other tasks or activities not requiring access to that property, and shall reimburse the EPA for all costs incurred in performing such tasks or activities. Respondents shall integrate the results of any such tasks or activities undertaken by the EPA into its plans, reports and other deliverables.

55. Notwithstanding any provision of this Settlement Agreement and Order on Consent, the EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIII. COMPLIANCE WITH OTHER LAWS

56. Respondents shall comply with all applicable local, state and federal laws and regulations when performing the RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work is to be conducted off-site and requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIV. RETENTION OF RECORDS

57. During the pendency of this Settlement Agreement and Order on Consent and for a minimum of 10 years after commencement of construction of any remedial action, each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after commencement of construction of any remedial action, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature or description relating to performance of the Work.

58. At the conclusion of this document retention period, Respondents shall notify the EPA at least 90 days prior to the destruction of any such documents, records or other information, and, upon request by the EPA, Respondents shall deliver any such documents, records, or other information to the EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide the EPA with the following: 1) the title of the document, record, or other information; 2) the date of the document, record, or other information; 3) the name and title of the author of the document, record, or other information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or other information; and 6) the privilege asserted by Respondents. However, no documents, records or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

59. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by the EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XV. DISPUTE RESOLUTION

60. Unless otherwise expressly provided for in this Settlement Agreement and Order on Consent, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement and Order on Consent. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement and Order on Consent expeditiously and informally.

61. If Respondents object to any EPA action taken pursuant to this Settlement Agreement and Order on Consent, including billings for Future Response Costs, they shall notify

the EPA in writing of their objection(s) within 30 days of such action, unless the objection(s) has/have been resolved informally. The EPA and Respondents shall have 60 days from the EPA's receipt of Respondents' written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of the EPA. Such extension may be granted verbally but must be confirmed in writing.

62. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement and Order on Consent. If the Parties are unable to reach an agreement within the Negotiation Period, an EPA management official at the Division Director level or higher will issue a written decision. The EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement and Order on Consent. Respondents' obligations under this Settlement Agreement and Order on Consent shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with the EPA's decision, whichever occurs, and regardless of whether Respondents agree with the decision.

XVI. STIPULATED PENALTIES

63. Respondents shall be liable to the EPA for stipulated penalties in the amounts set forth in Paragraphs 64 and 65 for failure to comply with any of the requirements of this Order specified below unless excused under Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the Work under this Settlement Agreement and Order on Consent or any activities contemplated under any RI/FS Work Plan or other plan approved under this Order identified below, in accordance with all applicable requirements of law, this Order, the SOW, and any plans or other documents approved by the EPA pursuant to this Order and within the specified time schedules established by and approved under this Settlement Agreement and Order on Consent.

64. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per day for any noncompliance identified in Subparagraph 64(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1500	1 st through 14 th day
\$ 2000	15 th through 30 th day
\$ 2500	31 st day and beyond

b. Compliance Milestones

1. Payment of Future Response Costs
2. Establishment of Escrow Accounts in the event of Disputes
3. Implementation of the Work Plan in accordance with the schedule provided in the plan and in the SOW.
4. Implementation of the Sampling and Analysis Plan in accordance with the schedule provided in the plan and in the SOW.
5. Completion of Site Characterization in accordance with the provisions and schedule in the Work Plan and SOW.

65. Stipulated Penalty Amounts - Reports.

a. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate reports or other written documents pursuant to Paragraphs 34 through 39:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1500	1 st through 14 th day
\$ 2000	15 th through 30 th day
\$ 2500	31 st day and beyond

66. In the event that the EPA assumes performance of a portion or all of the Work pursuant to Paragraph 84 of Section XX (Reservation of Rights by the EPA), Respondents shall be liable for a stipulated penalty in the amount of \$500,000.

67. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section X (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after the EPA's receipt of such submission until the date that the EPA notifies Respondents of any deficiency; and (2) with respect to a decision by the EPA Management Official designated in Paragraph 62 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA Management Official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement and Order on Consent.

68. Following the EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement and Order on Consent, the EPA may give Respondents written notification of the same and describe the noncompliance. The EPA may send Respondents a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether the EPA has notified

Respondents of a violation.

69. All penalties accruing under this Section shall be due and payable to the EPA within 30 days of Respondents' receipt from the EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution). All payments to the EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to the U.S. Environmental Protection Agency, Superfund Payments, Cincinnati Finance Center, P.O. Box 979076, St. Louis, MO 63197-9000, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number A6X7, the EPA Docket Number _____, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s) shall be sent to the EPA as provided in Paragraph 31, and to Ms. Cynthia Brown, U.S. EPA Region 6, 6SF-TE, 1445 Ross Avenue, Dallas, TX 75202.

70. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement and Order on Consent.

71. Penalties shall continue to accrue as provided in Paragraph 67 during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of the EPA's decision.

72. If Respondents fail to pay stipulated penalties when due, the EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 69.

73. Nothing in this Settlement Agreement and Order on Consent shall be construed as prohibiting, altering, or in any way limiting the ability of the EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement and Order on Consent or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that the EPA shall not seek civil penalties pursuant to Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of willful violation of this Order or in the event that the EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by the EPA), Paragraph 84. Notwithstanding any other provision of this Section, the EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement and Order on Consent.

XVII. FORCE MAJEURE

74. Respondents agree to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, *force majeure* is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement and Order on Consent despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

75. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement and Order on Consent, whether or not caused by a *force majeure* event, Respondents shall notify the EPA orally within 48 hours of when Respondents first knew that the event might cause a delay. Within 14 days thereafter, Respondents shall provide to the EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

76. If the EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Order that are affected by the *force majeure* event will be extended by the EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If the EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, the EPA will notify Respondents in writing of its decision. If the EPA agrees that the delay is attributable to a *force majeure* event, the EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. PAYMENT OF RESPONSE COSTS

77. Payment for Past Response Costs. Although payment for past response costs are not sought in this Settlement Agreement the EPA hereby reserves its right to seek past response costs in any subsequent administrative and/or judicial settlement agreement or action.

78. Payments of Future Response Costs.

a. Within 30 days of the Effective Date, Respondents shall pay to EPA \$ _____ in prepayment of Future Response Costs. The total amount paid shall be deposited by EPA in the Cedar Chemical Future Response Costs Special Account, within the EPA Hazardous Substance Superfund. These funds shall be retained and used by EPA to conduct or finance Future Response Actions. Payment shall be made by FedWire Electronic Funds Transfer ("EFT"), to the U.S. Department of Justice account in accordance with current EFT procedures, referencing the civil action number, EPA Site/Spill ID Number _____, and DOJ Case Number _____. Payment shall be in accordance with the instructions provided to the Respondents by the Financial Litigation Unit of the United States Attorney Office for the District of _____ following lodging of the Consent Decree. Any payment received by the Department of Justice after 4:00 p.m. (Eastern Standard Time) will be credited on the next business day. Any amounts received under this Subparagraph will be credited to the Settling Defendants in the final accounting pursuant to Subparagraph 78.e.

b. At the time of payment, Respondents shall send notice that payment has been made to the United States, to the EPA Project Coordinator and to the Servicing Financing Office.

c. Respondents shall pay to EPA all Future Response Costs not inconsistent with the National Contingency Plan. On a periodic basis, the United States will send Respondents a bill requiring payment that includes a (**insert name of standard Regionally-prepared costs summary, which includes the direct and indirect costs incurred by EPA and its contractors, and name of DOJ-prepared cost summary, which reflect costs incurred by DOJ and its contractors, if any**). Respondents shall make all payments required by this Paragraph in the manner required by Subparagraph 78.a., with notice as required by Subparagraph 78.b. The total amount paid will be deposited by EPA in the Cedar Chemical Future Response Costs Special Account within the EPA Hazardous Substance Superfund. These funds will be retained and used by EPA to conduct or finance Future Response Costs. Any amounts remaining in the Cedar Chemical Future Response Costs Special Account, will be disbursed or credited in accordance with Subparagraph 78.e.

d. In the event that EPA's use of the Cedar Chemical Future Response Costs Special Account results in there being \$ _____ or less in the Cedar Chemical Future Response Costs Special Account at any time, Respondents agree, within 14 days or less, to remit to EPA \$ _____ for deposit in the Cedar Chemical Future Response Costs Special Account, in accordance with the payment procedure described in Subparagraph 78.a and 78.b. Any amounts received under this Subparagraph will be credited to Respondents in the final accounting in Subparagraph 78.e.

e. After EPA issues its written Certification of Completion of Work and EPA has performed a final accounting of Future Response Costs, EPA shall offset the final bill for Future Response Costs by the unused amount paid by the Repondents pursuant to Subparagraph 78.a. or 78.d.

79. Respondents may contest payment of any Future Response Costs under Paragraph 78 that were incurred during the time period that any prepaid amounts were received under Subparagraph 78.c. with the exception of amounts due under Paragraphs 78.a. or 78.d. if they determine that the United States (or the State) has made a mathematical error or if they allege that a cost item that is included represents costs that are inconsistent with the NCP or outside the definition of Future Response Costs.

80. Respondents may contest payment of any Future Response Costs under Paragraph 78 if they determine that the EPA has made an accounting error or if they believe the EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the EPA Project Coordinator. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30 day period pay all uncontested Future Response Costs to the EPA in the manner described in Paragraph 78. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Texas and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XV (Dispute Resolution). If the EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to the EPA in the manner described in Paragraph 78. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to the EPA in the manner described in Paragraph 78. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse the EPA for its Future Response Costs.

XIX. COVENANT NOT TO SUE BY EPA

81. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, the EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work performed under this Order and for recovery of Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of all obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XVIII. This covenant not to sue extends only to Respondents and does

not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

82. Except as specifically provided in this Order, nothing herein shall limit the power and authority of the EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent the EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

83. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. The EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

84. Work Takeover. In the event the EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, the EPA may assume the performance of all or any portion of the Work as the EPA determines necessary. Respondents may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute the EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the EPA in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XVIII (Payment of Response Costs).

Notwithstanding any other provision of this Order, the EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENTS

85. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Future Response Costs, or this Settlement Agreement and Order on Consent, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of the Work or arising out of the response actions for which the Future Response Costs have or will be incurred, including any claim under the United States Constitution, the Texas Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Future Response Costs.

86. These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 83 (b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

87. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XXII. OTHER CLAIMS

88. By issuance of this Settlement Agreement and Order on Consent, the United States and the EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents.

89. Except as expressly provided in Section XIX (Covenant Not to Sue by EPA), nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

90. No action or decision by the EPA pursuant to this Settlement Agreement and Order on Consent shall give rise to any right to judicial review except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. CONTRIBUTION

91. Contribution

a. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. 9613(f)(2) that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work, and Future Response Costs.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. 9613(f)(3)(B) pursuant to which Respondents have, as of the Effective Date, resolved their liability to the United States for the Work, Past Response Costs and Future Response Costs.

c. Except as provided in Section XXI Paragraph(s)___ of this Settlement Agreement (Non-Exempt DeMicromis, [DeMinimis and MSW Waivers] nothing in this Settlement Agreement precludes the United States or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. 9613(f)(2)(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

XXIV. INDEMNIFICATION

92. Respondents shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement and Order on Consent. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement and Order on Consent. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying

out activities pursuant to this Order. Neither Respondents nor any such contractor shall be considered an agent of the United States.

93. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

94. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site.

XXV. INSURANCE

95. At least 30 days prior to commencing any On-Site Work under this Settlement Agreement and Order on Consent, Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of \$5,000,000 dollars, combined single limit, naming the EPA as an additional insured. Within the same period, Respondents shall provide the EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement and Order on Consent, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Order. If Respondents demonstrate by evidence satisfactory to the EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. FINANCIAL ASSURANCE

96. Within 30 days of the Effective Date, Respondents shall establish and maintain financial security for the benefit of the EPA in the amount of \$ **[insert estimated cost of Work]** in one or more of the following forms, in order to secure the full and final completion of Work by Respondents:

a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;

b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to the EPA equaling the total estimated cost of the Work;

c. a trust fund administered by a trustee acceptable in all respects to the EPA;

d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;

e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of Respondents, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; including a demonstration that any such company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or

f. a corporate guarantee to perform the Work by one or more of Respondents, including a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

97. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to the EPA, determined in the EPA's sole discretion. In the event that the EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of the EPA's determination, obtain and present to the EPA for approval one of the other forms of financial assurance listed in Paragraph 96, above. In addition, if at any time the EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to the EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement and Order on Consent.

98. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 96.e. or 96.f. of this Settlement Agreement and Order on Consent, Respondents shall (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date, to the EPA. For the purposes of this Order, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$___ for the Work at the Site shall be used in relevant financial test calculations.

99. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 96 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to

by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to the EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from the EPA. In the event of a dispute, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). Respondents may reduce the amount of security in accordance with the EPA's written decision resolving the dispute.

100. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by the EPA, provided that the EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVII. INTEGRATION/APPENDICES

101. This Settlement Agreement and Order on Consent and its appendices and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Settlement Agreement and Order on Consent and become incorporated into and enforceable under this Settlement Agreement and Order on Consent constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement and Order on Consent. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement and Order on Consent. The following appendices are attached to and incorporated into this Order:

"Appendix A" is the list of Respondents.

"Appendix B is the SOW map of the Site.

"Appendix C" is the map of the Site.

XXVIII. ADMINISTRATIVE RECORD

102. The EPA will determine the contents of the administrative record file for selection of the remedial action. Respondents shall submit to the EPA documents developed during the course of the RI/FS upon which selection of the response action may be based. Upon request of the EPA, Respondents shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of the EPA, Respondents shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondents and state, local or other federal authorities concerning selection of the response action. At the EPA's discretion, Respondents shall establish a community information repository at or near the Site, to house one copy of the

administrative record.

XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

103. This Settlement Agreement shall be effective on the day this Settlement Agreement and Order on Consent is signed by the Superfund Division Director.

104. This Settlement Agreement and Order on Consent may be amended by mutual agreement of the EPA and Respondents. Amendments shall be in writing and shall be effective when signed by the EPA. EPA Project Coordinators do not have the authority to sign amendments to the Order.

105. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement Agreement and Order on Consent, or to comply with all requirements of this Order, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

106. When the EPA determines that all Work has been fully performed in accordance with this Settlement Agreement and Order on Consent, with the exception of any continuing obligations required by this Settlement Agreement and Order on Consent, including but not limited to payment of Future Response Costs or record retention, the EPA will provide written notice to Respondents. If the EPA determines that any such Work has not been completed in accordance with this Settlement Agreement and Order on Consent, the EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RI/FS Work Plan if appropriate in order to correct such deficiencies, in accordance with Paragraph 36 (Modification of the Work Plan). Failure by Respondents to implement the approved modified RI/FS Work Plan shall be a violation of this Settlement Agreement and Order on Consent.

Agreed this ____ day of _____, 2014.

For Respondent _____

By: _____

Title: _____

It is so ORDERED AND AGREED this _____ day of _____, 2014.

BY: _____ DATE: _____
Director, Superfund Division
Region 6
U.S. Environmental Protection Agency
EFFECTIVE DATE: _____

APPENDIX A
Parties Receiving 12/31/2013 Mailing

Chintan K. Amin
Sr. Counsel
Bayer Corporation
100 Bayer Road
Pittsburgh, Pennsylvania 15241

Edward Lewis
Syngenta
Fulbright & Jaworski L.L.P
1301 McKinney Street
Suite 5100
Houston, Texas 77010

CC: Ken Rike
GB Biosciences Corporation
2239 Haden Road
Houston, Texas 77015

Jeffery S. Lang
Senior HSE Counsel
Rhodia Incorporated
8 Cedar Brook Drive
Cranbury, New Jersey 08512

Eve W. Barron, Senior Counsel
Environmental & Safety Law Group

Chevron U.S.A. Incorporated
1400 Smith Street, 5th Floor
Houston, Texas 77002

Shannon S. Callahan, Esq.
Authorized Representative
Rohm and Haas
100 Independence Mall West
Philadelphia, Pennsylvania 19106

Kevin Vaughan
Exxon Mobil Corporation
3225 Gallows Road, Room 3D0212
Fairfax, Virginia 22037

Helena Chemical Company
225 Schilling Boulevard
Collierville, Tennessee 38017

Judith A. Reinsdorf
Executive Vice President & General
Counsel
Tyco Safety Products
2000 Auburn Drive Street
Beachwood, Ohio 44122

ENCLOSURE 3

**APPENDIX B: STATEMENT OF WORK
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE
WEST HELENA, ARKANSAS**

TABLE OF CONTENTS

I.	INTRODUCTION	2
II.	PERFORMANCE STANDARDS	4
III.	ROLE OF THE EPA	4
IV.	RESPONDENTS' KEY PERSONNEL	5
V.	TASKS TO BE PERFORMED AND DELIVERABLES	5
TASK 1:	SCOPING.....	6
TASK 2:	REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI / FS) WORK PLAN.....	7
TASK 3:	RI/FS SAMPLING AND ANALYSIS PLAN	9
TASK 4:	RI/FS HEALTH AND SAFETY PLAN	10
TASK 5:	COMMUNITY INVOLVEMENT PLAN	10
TASK 6:	SITE CHARACTERIZATION	11
TASK 7:	RISK ASSESSMENTS	14
TASK 8:	TREATABILITY STUDIES	19
TASK 9:	REMEDIAL INVESTIGATION REPORT	21
TASK 10:	FEASIBILITY STUDY	21
APPENDIX A	SCHEDULE OF DELIVERABLES/MEETINGS	
APPENDIX B	GUIDANCE DOCUMENTS	
APPENDIX C	APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS	

APPENDIX B
STATEMENT OF WORK
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE
WEST HELENA, PHILLIPS COUNTY, ARKANSAS

1. INTRODUCTION

1. This Statement of Work (SOW) provides an overview of work that will be carried out by respondents as they implement a Remedial Investigation and Feasibility Study (RI/FS) for the Cedar Chemical Corporation (CCC) Superfund Site (the Site). This RI/FS SOW is attached to the Administrative Order on Consent (AOC) for Remedial Investigation/Feasibility Study for the Site and is a supporting document for the AOC. Technical work described in the SOW is intended to provide more information to Respondents for purposes of implementing the AOC and is not intended to change the meaning of any AOC language. This SOW is also consistent with both the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP). Any discrepancies between the AOC and SOW are unintended, and whenever necessary, the AOC will control in any interpretive disputes.
2. The RI/FS is expected to be an iterative process. This SOW outlines a decision process that will be used to focus sampling programs to gather data that are needed for the decision process. The U.S. Environmental Protection Agency (EPA) understands there may be concern on the part of Respondents that such an iterative process could lead to substantial increases in the size, cost, and scope of the RI/FS. However, EPA has an obligation under CERCLA to protect human health and the environment wherever hazardous substances have been discharged or migrated in the environment. To balance these competing interests, EPA's Office of Solid Waste and Emergency Response is promoting more effective strategies (i.e., Triad Approach) for characterizing, monitoring, and cleaning up hazardous waste sites. The Triad Approach integrates systematic planning, dynamic work plans, and on-site analytical tools used to support decisions about hazardous waste sites. Additional information regarding the Triad Approach is attached and can be found at the following website: http://www.clu-in.org/conf/tio/triad_012303.
3. The purpose of the RI/FS is to investigate the nature and extent of contamination for the Site, to assess the potential risk to human health and the environment, to develop and evaluate potential remedial action alternatives, and to recommend a preferred alternative. The RI and FS are interactive and will be conducted concurrently, to the extent practicable in a manner that allows information and data collected during the RI to influence the development of remedial alternatives during the FS, which in turn affect additional information and data needs and the scope of any necessary treatability studies and risk assessments.
4. Respondents will conduct the RI/FS and will produce draft RI and FS reports that are in accordance with the AOC. The RI/FS will be consistent with the Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (U.S. EPA, Office of Emergency and Remedial Response, October 1988) Data Quality Objectives (DQOs) planning process (EPA QA /G-4, August 2000), and other applicable guidance that EPA uses in conducting an RI/FS (a list of the primary guidance is attached), including potentially applicable guidance released by EPA after the effective date of this SOW. EPA is aware that not all guidance used for the RI/FS purposes may be applicable to the Site. EPA Remedial Project Managers (RPMs) for sites have the authority under the NCP to determine when application of any guidance would be inappropriate. Respondents may raise such guidance issues they

consider appropriate during the implementation of the AOC. EPA's decisions regarding guidance applicability will be incorporated into document approval correspondence or in other written correspondence as appropriate.

5. The RI/FS Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA describes the suggested report format and content for the draft RI and FS reports. Respondents will furnish all necessary personnel, materials, and services needed for, or incidental to performing the RI/FS, except as otherwise specified in the AOC.

6. At the completion of the RI/FS, EPA will be responsible for the selection of a Site remedy and will document this selection in one or more Records of Decision (RODs). The response action alternatives selected by EPA will meet the cleanup standards specified in Section 121 of CERCLA, 42 U.S.C. § 9621; the selected remedy will be protective of human health and the environment, will be in compliance with, or include a waiver of, applicable or relevant and appropriate requirements (ARARs), will be cost-effective, will utilize permanent solutions and alternative treatment technologies or resource recovery technologies, to the maximum extent practicable, and will address the statutory preference for treatment as a principal element, as appropriate under the NCP. The final RI/FS report, as approved by EPA, will, with the administrative record, form the basis for the selection of the Site's remedy and will provide the information necessary to support development of one or more RODs.

As specified in Section 104(a)(I) of CERCLA, 42 U.S.C. § 9604(a)(I), EPA will provide oversight of Respondents' activities throughout implementation of the AOC. Respondents will support EPA's initiation and conduct of activities related to implementation of oversight activities.

Purpose of the Statement of Work

7. This SOW sets forth certain requirements of the AOC for implementation of the Work pertaining to the RI/FS for the Site. The Respondents shall undertake the RI/FS according to the AOC, including, but not limited to, this SOW.

Objectives of the Remedial Investigation/Feasibility Study

8. The objectives of the RI/FS are to investigate the nature and extent of contamination at or from the Site and to develop and evaluate potential remedial alternatives, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, 42 U.S.C. § 9601, et seq.); as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA); and in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan (NCP)). Specifically, these objectives are to determine the presence or absence, types, and quantities (concentrations) of contaminants; mechanism of contaminant release to pathway(s); direction of pathway(s) transport; boundaries of source(s) and pathway(s); and environmental/public health receptors.

Scope of Remedial Investigation and Feasibility Study

9. The general scope of the RI/FS shall be to address all contamination at the Site resulting from the hazardous substances present at the Site.

Description of the Site

10. The site is located in Phillips County, Arkansas, south of West Helena. The site consists of 48 acres along State Highway 242, 1 mile southwest of the intersection of U.S. Highway 49 and Highway 242. The site is in the Helena-West Helena Industrial Park, and includes six former production units,

support facilities and an office on the north side of Industrial Park Road. A biological treatment system is located south of Industrial Park Road, Arkansas Highway 242 to the northwest, a Union Pacific railway to the northeast, and other industrial park properties to the southeast and southwest bound the site.

The Facility was initially operated by Helena Chemical in 1970. The Facility was purchased by Eagle River Chemical and was operated for approximately 18 months by Ansul under the name of Eagle River Chemical. During this time period, dinoseb was produced on the site. From 1971 to 2002, the facility manufactured or processed a variety of agricultural and organic chemicals under various owners and operators. The last owner of record was Cedar Chemical Corporation. On March 8, 2002, Cedar Chemical Corporation filed for bankruptcy. Manufacturing and plant operations were shut down shortly thereafter. The Arkansas Department of Environmental Quality (ADEQ) assumed control of the facility on October 12, 2002, and currently acts as the caretaker of the facility.

11. The Arkansas Department of Environmental Quality (ADEQ) has pursued Potentially Responsible Parties (PRPs) to conduct the necessary actions and recover Remedial Action Trust Fund expenditures associated with the site investigation and cleanup. ADEQ entered into a Consent Administrative Order (CAO) LIS-07-027 on March 22, 2007 with Ansul Incorporated (formally known as Wormald US, Inc.), Helena Chemical Company and Exxon Mobil Chemical (a division of Exxon Mobil Corporation). The Respondents to the CAO have developed a Feasibility Study Report (FS) proposing remedies for areas of concern. The FS was used to support the development of a Remedial Action Decision Document (RADD). The RADD was finalized and signed on June 3, 2010. All of the aforementioned investigations, studies and reports may be used by the Respondents to supplement the work required to complete the RI/FS required in this SOW.

II. PERFORMANCE STANDARDS

12. The Performance Standards for this RI/FS shall include substantive requirements, criteria, or limitations which are specified in the AOC, including, but not limited to, this SOW. Submissions approved by the EPA are an enforceable part of the AOC; consequently, cleanup goals and other substantive requirement, criteria, or limitations which are specified in EPA-approved submissions are Performance Standards. The EPA will use the Performance Standards to determine if the work, including, but not limited to, the RI/FS, has been completed. The Respondents shall ensure that the RI/FS is consistent with the EPA's "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (EPA 1988b, hereinafter "the RI/FS guidance") and other applicable sections of EPA guidance cited herein. If the EPA approves a schedule for any work pursuant to the AOC, the schedule shall supersede any timing requirements established in the RI/FS. Likewise, if the EPA, pursuant to the AOC, requires the Respondents to perform certain work at a point in time which is not consistent with the RI/FS guidance or other guidance, the Respondents shall perform the work as specified by the AOC, for example, on page B-2, the RI/FS guidance says that the Field Investigation is complete when the contractors or subcontractors are demobilized from the field; however, if the EPA, pursuant to the AOC, requires the Respondents to perform additional field investigation activities once the contractors or subcontractors have demobilized, the Respondents shall remobilize the contractors or subcontractors and perform the additional work. Except where it is inconsistent with this AOC, as determined by the EPA, the RI/FS guidance and other applicable sections of EPA guidance cited herein are Performance Standards.

III. ROLE OF THE EPA

13. The EPA's approval of deliverables, including, but not limited to, submissions, allows the Respondents to proceed to the next steps in implementing the Work of the RI/FS. The EPA's approval does not imply any warranty of performance, nor does it imply that the RI/FS, when completed, will function properly and be ultimately accepted by the EPA. The EPA retains the right to disapprove submissions during the RI/FS. The EPA may disapprove deliverables including, but not limited to, submissions concerning such matters as the contractor selection, plans and specifications, work plans, processes, sampling, analysis and any other deliverables within the context of the AOC. If a submission is unacceptable to the EPA, the EPA may require the Respondents to make modifications in the submission, and the EPA may require the Respondents to do additional work to support those modifications. That is, if a submission reports certain work that is unacceptable to the EPA, the EPA may require the Respondents to modify the submission text and to perform the work until it is acceptable to the EPA. The Respondents shall modify the submission and perform the work as required by the EPA.

IV. RESPONDENTS' KEY PERSONNEL

Respondent's Project Coordinator

14. When necessary, as determined by the EPA, the EPA will meet with the Respondents and discuss the performance and capabilities of the Respondent's Project Coordinator. When the Project Coordinator's performance is not satisfactory, as determined by the EPA, the Respondents shall take action, as requested by the EPA, to correct the deficiency. If, at any time, the EPA determines that the Project Coordinator is unacceptable for any reason, the Respondents, at the EPA's request, shall bar the Project Coordinator from any work under the AOC and give notice of the Respondent's selected new Project Coordinator to the EPA.

Respondent's Quality Assurance Manager

15. Oversight, including, but not limited to confirmation sampling, by the Respondent's Quality Assurance Manager (QA Manager) will be used to provide confirmation and assurance to the Respondents and to the EPA that the Respondents are performing the RI/FS in a manner that will meet the Performance Standards. The QA Manager shall ensure that the work performed by the Respondents meets the standards in the Quality Assurance Project Plan described in this SOW. The QA Manager shall selectively test and inspect the work performed by the Respondents.

V. TASKS TO BE PERFORMED AND DELIVERABLES

Conduct of the Remedial Investigation and Feasibility Study

16. This SOW specifies the Work to be performed and the deliverables which shall be produced by the Respondents. The Respondents shall conduct the RI/FS in accordance with this SOW and all applicable guidance that the EPA uses in conducting RI/FS projects under CERCLA, as amended by

SARA, as well as any additional requirements in the AOC. The Respondents shall furnish all necessary personnel, materials, and services necessary for, and incidental to, performance of the RI/FS, except as otherwise specified in the AOC or SOW.

Submittal of Deliverables

17. All draft and final deliverables specified in this SOW shall be provided in hard copy, by the Respondents, to the EPA (one copy), EPA's RI/FS Oversight Contractor (one copy - as deemed necessary by the site RPM), the Texas Commission on Environmental Quality (TCEQ, two copies), and the Federal/State Natural Resource Trustees¹ (one copy each). Draft and final deliverables shall be provided in electronic format (specifically, Microsoft® Word and Adobe® PDF format (only final deliverables)) to the EPA, EPA's RI/FS Oversight Contractor (if necessary), TCEQ, and the Federal/State Natural Resource Trustees. Final deliverables shall be provided in hard copy and electronic format (specifically, Adobe® PDF format) to the Information Repository established for the Site. The EPA shall be responsible for placing the required deliverables into the Information Repository. The Respondents shall provide the EPA with any other documentation for the Information Repository as requested by the EPA's Remedial Project Manager. Additionally, all deliverables specified in this SOW shall be submitted, by the Respondents, according to the requirements of this SOW and Appendix A of this SOW (Schedule of Deliverables/Meetings). In addition to the Deliverables identified in Appendix A, Respondents shall provide to EPA an updated database with the bi-monthly status report for reporting periods in which validated data have been uploaded to the database.

Development of Deliverables

18. All deliverables shall be developed in accordance with the guidance documents listed in Appendix B² (Guidance Documents) to this SOW. Subject to the provisions regarding EPA Approval of Plans and other Submissions in Section X of the AOC, if the EPA disapproves of or requires revisions to any of these deliverables, in whole or in part, the Respondents shall submit to the EPA, within thirty (30) days after completing discussion of EPA's directions or comments on the deliverable (and in no event later than sixty (60) calendar days after receiving EPA's comments or directions on the deliverable), revised plans which are responsive to such directions or comments.

Tasks to be Performed by the Respondents

19. The Respondents shall perform each of the following Tasks (Tasks 1-10) as specified in this SOW. These Tasks shall be developed in accordance with the guidance documents listed in Appendix B² (Guidance Documents) to this SOW and any additional guidance applicable to the RI/FS process.

Task 1: Scoping

20. The purpose of Task 1 (Project Planning) is to determine how the RI/FS will be managed and controlled. The following activities shall be performed by the Respondents as part of Task 1.

¹The Federal/State Natural Resource Trustees for the Site have been identified as the U.S. Department of Interior, U.S. Fish and Wildlife Service, United States Geological Survey, Arkansas Department of Environmental Quality, Arkansas Natural Resources Commission, and the Arkansas Fish and Game Commission.

²Appendix B of this SOW does not include all guidance documents that are applicable to the RI/FS for the Site. The Respondents should consult with EPA's Remedial Project Manager for additional guidance and to ensure that the guidance documents have not been superseded by more recent guidance.

- a) The Respondents shall contact the EPA's Remedial Project Manager (RPM) within fourteen (14) calendar days after the effective date of the AOC to schedule a scoping phase meeting.
- b) The Respondents shall compile, review, and evaluate all existing Site data. The Respondents shall refer to Table 2-1 (Data Collection Information Sources) of the RI/FS Guidance for a list of data collection information sources. The Respondents shall exhaust, as necessary, all of those sources in compiling the data.

The Respondents shall compile all existing information describing hazardous substance sources, migration pathways, and potential human and environmental receptors. The Respondents shall compile all existing data relating to the varieties and quantities of hazardous substances released at or from the Site. The Respondents shall compile and review all available data relating to past disposal practices of any kind on and near the Site. The Respondents shall compile existing data concerning the physical and chemical characteristics of the hazardous substances, and their distribution among the environmental media (ground water, soil, surface water, sediments, and air) on and near the Site.

The Respondents shall compile existing data which resulted from any previous sampling events that may have been conducted on and near the Site. The Respondents shall gather existing data which describes previous responses that have been conducted on and near the Site by local, state, federal, or private parties.

The Respondents shall gather existing information regarding geology, hydrogeology, hydrology (including floodplains), meteorology (including previous hurricane activity), and ecology of the Site. The Respondents shall gather existing data regarding background ground water, background soil, background surface water, background sediments, and background air characteristics (if necessary). The Respondents shall gather existing data regarding demographics, land use, property boundaries, and zoning. The Respondents shall gather existing data which identifies and locates residential, municipal, or industrial water wells on and near the Site. The Respondents shall gather existing data which identifies surface water uses for areas surrounding the Site including, but not limited to, downstream of the Site. The Respondents shall gather existing information describing the flora and fauna of the Site. The Respondents shall gather existing data regarding state and federally listed threatened, endangered, or rare species; sensitive environmental areas; or critical habitats on and near the Site. The Respondents shall compile any existing ecological assessment data. This may include, but is not limited to, results of acute or chronic toxicity tests using Site surface water and/or sediment, analysis of invertebrate and/or fish tissue concentrations, analysis of wildlife tissue and egg concentrations, and any wildlife or invertebrate census or community survey information.

The Respondents shall use data compiled and reviewed to describe additional data needed to characterize the Site, to better define potential ARARs, and to develop a range of preliminarily identified remedial alternatives. All previously collected data shall be reviewed to determine compliance with the data quality requirements for the project and that it is suitable for use in the

RI/FS.

Task 2: Remedial Investigation and Feasibility Study Work Plan

21. The Respondents shall prepare and submit a Draft RI/FS Work Plan (WP) within sixty (60) calendar days after the Scoping Phase Meeting. The Respondents shall use information from appropriate EPA guidance and technical direction provided by the EPA's RPM as the basis for preparing the Draft RI/FS WP. The RI/FS shall be conducted in a manner that minimizes environmental impacts in accordance with the EPA's Principles for Greener Cleanups (EPA 2009a.) and EPA Region 6 Clean and Green Policy (EPA 2009b.) to the extent consistent with the National Contingency Plan (NCP), 40 CFR Part 300. The Best Management Practices available at <http://www.cluin.org/greenremediation/> shall be considered.
22. The Respondents shall develop the Draft RI/FS WP in conjunction with the Draft RI/FS Sampling and Analysis Plan (Task 3 (RI/FS Sampling and Analysis Plan)) and the Draft RI/FS Site Health and Safety Plan (Task 4 (RI/FS Site Health and Safety Plan)), although each plan may be submitted to the EPA under separate cover. The Draft RI/FS WP shall include a comprehensive description of the Work to be performed, the methodologies to be utilized, and a corresponding schedule for completion. In addition, the Draft RI/FS WP shall include the rationale for performing the required activities.
23. Specifically, the Draft RI/FS WP shall present a statement of the problem(s) and potential problem(s) posed by the Site and the objectives of the RI/FS. Furthermore, the Draft RI/FS WP shall include a Site background summary setting forth the Site description which includes the geographic location of the Site, and to the extent possible, a description of the Site's physiography, hydrology, geology, and demographics; the Site's ecological, cultural and natural resource features; a synopsis of the Site history and a description of previous responses that have been conducted at the Site by local, state, federal, or private parties; and a summary of the existing data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among the environmental media at the Site. In addition, the Draft RI/FS WP shall include a description of the Site management strategy developed during scoping, and a preliminary identification of remedial alternatives and data needs for evaluation of remedial alternatives. The Draft RI/FS WP shall reflect coordination with treatability study requirements (Task 8 (Treatability Studies)) and will show a process for and manner of identifying Federal and State chemical-, location-, and action-specific ARARs.
24. Finally, the major part of the Draft RI/FS WP shall be a detailed description of the Tasks (Tasks 1-10) to be performed, information needed for each Task and for the Baseline Human Health and Ecological Risk Assessments, information to be produced during and at the conclusion of each Task, and a description of the Work products and deliverables that the Respondents will submit to the EPA. This includes the deliverables set forth in the remainder of this SOW; a schedule for each of the required activities which is consistent with the EPA's guidance documents; monthly reports to the EPA as specified in Appendix A (Schedule of Deliverables/Meetings); and meetings and presentations to the EPA at the conclusion of each major phase of the RI/FS. The Respondents shall refer to the EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA 1988b) which describes the RI/FS WP format and the required content.

25. The Respondents are responsible for fulfilling additional data and analysis needs identified by the EPA consistent with the general scope and objectives of this RI/FS. Because of the nature of the Site and the iterative nature of the RI/FS, additional data requirements and analyses may be identified throughout the process. If any significant additional Work is required to meet the objectives stated in the RI/FS WP, based upon new information obtained during the RI/FS, the Respondents shall submit a Draft RI/FS WP Amendment to the EPA for review and approval prior to any additional Work being conducted in accordance with the AOC and SOW. The EPA may, at its discretion, give verbal approval for Work to be conducted prior to providing written approval of the Draft RI/FS WP Amendment.

26. Subject to the provisions in Section X of the AOC, the Respondents shall prepare and submit to the EPA a final RI/FS Work Plan within thirty (30) calendar days after completing discussion of EPA's comments on the draft RI/FS Work Plan (and in no event later than sixty (60) calendar days after receipt of the EPA's comments on the draft RI/FS Work Plan).

Task 3: RI/FS Sampling and Analysis Plan

27. The Respondents shall prepare and submit to the EPA a Draft RI/FS Sampling and Analysis Plan (SAP) within sixty (60) calendar days after the Scoping Phase Meeting. This Draft RI/FS SAP shall provide a mechanism for planning field activities and shall consist of an RI/FS Field Sampling Plan and Quality Assurance Project Plan as follows:

a) The RI/FS Field Sampling Plan (FSP) shall define in detail the sampling and data gathering methods that will be used for the project to define the nature and extent of contamination and risk assessment-related studies (Task 7, Risk Assessments). It shall include, but not be limited to, sampling objectives, sample location and frequency, sampling equipment and procedures, and sample handling and analysis. The RI/FS FSP shall contain a completed Sample Design Collection Worksheet and a Method Selection Worksheet. These worksheet templates can be found in the EPA's guidance document entitled, "Guidance for Data Useability in Risk Assessment" (EPA 1992a). In addition, the FSP shall include a comprehensive description of the Site including geology; location; and physiographic, hydrological, ecological, cultural, and natural resource features; a brief synopsis of the history of the Site; summary of existing data; and information on fate and transport and effects of chemicals. As such, the Respondents shall provide a strategy that includes both biased sampling and random sampling. The risk assessments require that the sampling be conducted to demonstrate that data is statistically representative of the Site. The Respondents shall also confirm that the detection limits for all laboratories are in accordance within the goals stated in the EPA's risk assessment guidance.

The FSP shall consider the use of all existing data and shall justify the need for additional data whenever existing data will meet the same objective. Existing data, if used for the RI/FS, shall meet the data quality and usability requirements based on the data quality objectives for the Site. The FSP shall be written so that a field sampling team unfamiliar with the Site would be able to gather the samples and field information required. The Respondents shall refer to EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA 1988b) which describes the RI/FS FSP format and the required content. The Respondents shall document any required changes to the Final FSP, during

the implementation of the RI/FS, in a memorandum to the EPA's Remedial Project Manager and after discussions with the EPA.

b) The RI/FS Quality Assurance Project Plan (QAPP) shall describe the project objectives and organization, functional activities, and quality assurance and quality control (QA/QC) protocols that will be used to achieve the desired Data Quality Objectives (DQOs). The DQOs shall at a minimum reflect use of analytical methods for identifying contamination and remediating contamination consistent with the levels for remedial action objectives identified in the NCP. In addition, the RI/FS QAPP shall address sampling procedures; sample custody; analytical procedures; data reduction, validation, and reporting; and personnel qualifications. The Respondents shall refer to the EPA's guidance documents entitled; "EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5" (EPA 2001, EPA/240/B-01/003, March 2001, or the latest revision), and "Guidance for Quality Assurance Project Plans, EPA QA/G-5" (EPA 2002, EPA/240/R-02/009, December 2002, or the latest revision) which describe the RI/FS QAPP format and the required content.

Subject to the provisions in Section X of the AOC, the Respondents shall prepare and submit to the EPA a final RI/FS SAP within thirty (30) calendar days after completing discussion of EPA's comments on the draft RI/FS SAP (and in no event later than sixty (60) calendar days after receipt of the EPA's comments on the draft RI/FS SAP).

28. The Respondents shall demonstrate in advance, to the EPA's satisfaction, that each analytical laboratory it may use is qualified to conduct the proposed Work. This includes use of methods and analytical protocols for the chemicals of concern in the media of interest within detection and quantification limits consistent with both QA/QC procedures and the DQOs approved in the RI/FS QAPP for the Site by the EPA. The laboratory must have, and follow, an approved QA program. If a laboratory not in the Contract Laboratory Program (CLP) is selected, methods consistent with CLP methods shall be used where appropriate. Any methods not consistent with CLP methods shall be approved by the EPA prior to their use. Furthermore, if a laboratory not in the CLP program is selected, a laboratory QA program must be submitted to the EPA for review and approval. The EPA may require the Respondents to submit detailed information to demonstrate that the laboratory is qualified to conduct the Work, including information on personnel and qualifications, equipment, and material specifications.

Task 4: RI/FS Site Health and Safety Plan

29. The Respondents shall prepare and submit to the EPA an RI/FS Site Health and Safety Plan (HSP) within sixty (60) calendar days after the Scoping Phase Meeting. This RI/FS HSP shall be prepared in accordance with the Occupational Safety and Health Administration regulations and protocols and must be in place prior to any onsite activities. The EPA will review, but not approve, the RI/FS Site HSP to ensure that all necessary elements are included and that the plan provides for the protection of human health and the environment. The EPA may, at its discretion, disapprove the Site HSP and provide comments concerning those aspects of the plan which pertain to the protection of the environment and the health of persons not employed by, or under contract to, the Respondents. In addition, EPA may require a revised RI/FS Site HSP to be submitted for review in the event that the RI/FS WP is changed or amended (e.g., such as in the performance of pilot studies which may result in the airborne emissions of hazardous

substances from the Site). The Respondents shall refer to the EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA 1988b) which describes the RI/FS Site HSP format and the required content.

Task 5: Community Involvement Plan

30. The development and implementation of community relations activities, including community interviews and developing a community involvement plan, are the responsibilities of EPA. Respondents must assist, as required by EPA, by providing information regarding the Site's history, participating in public meetings upon notice from EPA, or by preparing fact sheets for distribution to the general public. As appropriate and feasible, EPA will provide Respondents with the opportunity to review and provide comments on a draft community involvement plan, including the stakeholder and community mailing lists, and fact sheets prior to distribution. In addition, EPA may require that Respondents establish a community information repository, at or near the Site, to house one copy of the administrative record. The extent of Respondents' involvement in community relations activities is left to the discretion of EPA. Respondents' community relations responsibilities, if any, are specified in the community involvement plan. All community relations activities will be subject to oversight by EPA.

Task 6: Site Characterization

31. As part of the Remedial Investigation (RI), the Respondents shall perform the activities described in this Task, including the preparation of an RI Report (Task 9, Remedial Investigation Report). The overall objective of the Site's characterization will be to describe areas of the Site that may pose a threat to human health or the environment. This will be accomplished by first determining the Site's physiography, geology, and hydrology. Surface and subsurface pathways of migration shall be defined by the Respondents. The Respondents shall identify the sources of contamination and define the nature, extent, and volume of the sources of contamination, including their physical and chemical constituents. The Respondents shall also investigate the extent of migration of this contamination as well as its volume and any changes in its physical or chemical characteristics, to provide for a comprehensive understanding of the nature and extent of contamination at the Site. Using this information, contaminant fate and transport will then be determined and projected.

32. The Respondents shall implement the Final RI/FS WP, and SAP during this phase of the RI/FS. Field data will be collected and analyzed to provide the information required to accomplish the objectives of the study. The Respondents shall notify the EPA at least fifteen (15) calendar days in advance of the field work regarding the planned dates for field activities, including, but not limited to, ecological field surveys, field layout of the sampling grid, installation of wells, initiating sampling (air, surface water, ground water, sediments, soils, and biota), installation and calibration of equipment, aquifer tests, and initiation of analysis and other field investigation activities (including geophysical surveys and borehole geophysics). The Respondents shall not proceed with field activities without prior EPA approval. The Respondents shall demonstrate that the laboratory and type of laboratory analyses that will be utilized during the Site's characterization meets the specific QA/QC requirements and the DQOs established for the investigation of the Site as specified in the Final RI/FS SAP. Activities are often iterative, and to satisfy the objectives of the RI/FS it may be necessary for the Respondents to supplement the Work specified in the Final RI/FS WP.

33. The Respondents shall perform the following activities as part of Task 6 (Site Characterization):

- a) Field Investigation - The field investigation shall include the gathering of data to define

the Site's physical and biological characteristics, sources of contamination, and the nature and extent of contamination at or from the Site. These activities shall be performed by the Respondents in accordance with the Final RI/FS WP and SAP. At a minimum, this field investigation shall address the following:

i) Implementation and Documentation of Field Support Activities - The Respondents shall initiate field support activities following the Final RI/FS WP and SAP approved by the EPA. Field support activities may include obtaining access to the Site; scheduling; and procurement of equipment, office space, laboratory services, and/or contractors. The Respondents shall notify the EPA at least fifteen (15) calendar days prior to initiating field support activities so that the EPA may adequately schedule oversight activities. The Respondents shall also notify the EPA in writing upon completion of field support activities.

ii) Investigation and Definition of Site Physical and Biological Characteristics - The Respondents shall collect data on the physical and biological characteristics of the Site and its surrounding areas including the physiography, geology, hydrology, and specific physical characteristics identified in the Final RI/FS WP. This information shall be ascertained through a combination of physical measurements, observations, and sampling efforts, and will be utilized to define potential transport pathways and human and ecological receptor populations (including risks to endangered or threatened species). In defining the Site's physical characteristics, the Respondents shall also obtain sufficient engineering data for the projection of contaminant fate and transport, and development and screening of remedial action alternatives, including information to assess treatment technologies.

iii) Definition of Sources of Contamination - The Respondents shall locate each source of contamination. For each location, the areal extent and depth of contamination will be determined by sampling at incremental depths on a sampling grid. The physical characteristics and chemical constituents and their concentrations will be determined for all known and discovered sources of contamination. The Respondents shall conduct sufficient sampling to define the boundaries of the contaminant sources to the level established in the Final RI/FS QAPP and DQOs. Defining the source of contamination shall include analyzing the potential for contaminant release (e.g., long-term leaching from soil), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies.

iv) Description of the Nature and Extent of Contamination - The Respondents shall gather information to describe the nature and extent of contamination, at or from the Site, as a final step during the field investigation. To describe the nature and extent of contamination, the Respondents shall utilize the information on the Site's physical and biological characteristics and sources of contamination to give a preliminary estimate of the contaminants that may have migrated. The Respondents shall then implement an iterative monitoring program and any study program identified in the Final RI/FS WP or SAP such that by using analytical techniques sufficient to detect and quantify the

concentration of contaminants, the migration of contaminants through the various media at the Site can be determined. In addition, the Respondents shall gather data for calculations of contaminant fate and transport. This process shall be continued until the area and depth of contamination are known to the level of contamination established in the Final RI/FS QAPP and DQOs. The EPA will use the information on the nature and extent of contamination to determine the level of risk presented by the Site and to help determine aspects of the appropriate remedial action alternatives to be evaluated.

b) Data Analyses - The Respondents shall analyze the data collected and develop or refine the Conceptual Site Model by presenting and analyzing data on source characteristics, the nature and extent of contamination, the transport pathways and fate of the contaminants present at the Site, and the effects on human health and the environment:

i) Evaluation of Site Characteristics: The Respondents shall analyze and evaluate the data to describe the Site's physical and biological characteristics, contaminant source characteristics (as necessary to identify principal threat or low threat wastes, and estimate waste volumes for risk assessment evaluation and remedial alternatives evaluation purposes), nature and extent of contamination, and contaminant fate and transport. Results of the Site's physical characteristics, source characteristics, and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The evaluation will include the actual and potential magnitude of releases from the sources, and horizontal and vertical spread of contamination as well as the mobility and persistence of the contaminants. Where modeling is appropriate, such models shall be identified by the Respondents to the EPA in a Technical Memorandum prior to their use. If EPA disapproves or requires revisions to the technical memorandum, in whole or in part, subject to the provisions in Section X of the AOC, Respondents shall amend and submit to EPA a revised technical memorandum on modeling which is responsive to directions and EPA's comments within thirty (30) calendar days after completing discussion of the EPA's comments on the draft technical memorandum (and in no event later than sixty (60) calendar days after receipt of the EPA's comments on the draft memorandum).

All data and programming, including any proprietary programs, shall be made available to the EPA together with a sensitivity analysis. The RI data shall be presented in a format to facilitate the Respondent's preparation of the Baseline Human Health and Ecological Risk Assessments (Task 7, Risk Assessments). All data shall be archived in a database in such a format that would be accessible to investigators as needed.

The Respondents shall agree to discuss and then collect additional data for any data gaps identified by the EPA that are needed to complete the risk assessments. Also, this evaluation shall provide any information relevant to the Site's characteristics necessary for evaluation of the need for remedial action in the risk assessments and for the development and evaluation of remedial alternatives. Analyses of data collected for the Site's characterization shall meet the DQOs developed in the Final RI/FS QAPP and stated in the Final RI/FS SAP (or revised during the RI).

c) Data Management Procedures – The Respondents shall consistently document the quality and validity of field and laboratory data compiled during the RI as follows:

i) Documentation of Field Activities - Information gathered during the Site's characterization shall be consistently documented and adequately recorded by the Respondents in well maintained field logs and laboratory reports. The method(s) of documentation shall be specified in the Final RI/FS WP and/or the SAP. Field logs shall be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports shall document sample custody, analytical responsibility and results, adherence to prescribed protocols, nonconformity events, corrective measures, and data deficiencies.

ii) Sample Management and Tracking - The Respondents shall maintain field reports, sample shipment records, analytical results, and QA/QC reports to ensure that only validated analytical data are reported and utilized in the risk assessments and the development and evaluation of remedial alternatives. Analytical results developed under the Final RI/FS WP shall not be included in any characterization reports of the Site unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, the Respondents shall establish a data security system to safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

34. Reuse Assessment - If EPA, in its sole discretion, determines that a Reuse Assessment is necessary, Respondents will perform the Reuse Assessment in accordance with the SOW, RI/FS Work Plan and applicable guidance (EPA 2001c). The Reuse Assessment should provide sufficient information to develop realistic assumptions of the reasonably anticipated future land use for the Site.

Task 7: Risk Assessments

35. The Respondents shall perform a Baseline Human Health Risk Assessment, Screening Level Ecological Risk Assessment, and a Baseline Ecological Risk Assessment (if necessary) for the Site, which will be a part of the RI Report. The Respondents will prepare one section of the Final RI/FS WP (Task 2) which discusses the risk assessment process and outlines the steps necessary for coordinating with the EPA at key decision points within the process. Submittal of deliverables, meetings and/or conference calls, and presentations to the EPA will be reflected in the project schedule in the Final RI/FS WP to demonstrate the progress made on the risk assessments. The DQOs listed within the Final RI/FS QAPP will include DQOs specific to risk assessment needs, and critical samples needed for the risk assessments will be identified within the Final RI/FS SAP. The Respondents shall develop an initial Conceptual Site Model which may be revised as new information is obtained. These risk assessments shall consist of both Human Health and Ecological Risk Assessments as follows:

a) Baseline Human Health Risk Assessment: The Respondents shall perform a Baseline Human Health Risk Assessment (BHHRA) to evaluate and assess the risk to human health posed by the contaminants present at the Site. The Respondents shall refer to the appropriate EPA guidance documents (EPA 1989b, 1991a, 1991b, 1991c, 1992a, and 2001b) in conducting the BHHRA. The Respondents shall address the following in the BHHRA:

- i) Hazard Identification (sources) - The Respondents shall review available information on the hazardous substances present at the Site and identify the major contaminants of concern.
- ii) Dose-Response Assessment - The Respondents, with concurrence from the EPA, shall select contaminants of concern based on their intrinsic toxicological properties and distribution in the environment.
- iii) Conceptual Exposure/Pathway Analysis - The Respondents shall identify and analyze critical exposure pathways (e.g., drinking water). The proximity of contaminants to exposure pathways and their potential to migrate into critical exposure pathways shall be assessed.
- iv) Characterization of Site and Potential Receptors - The Respondents shall identify and characterize human populations in the exposure pathways.
- v) Exposure Assessment - During the exposure assessment, the Respondents shall identify the magnitude of actual or potential human exposures, the frequency and duration of these exposures, and the routes by which receptors are exposed. The exposure assessment shall include an evaluation of the likelihood of such exposures occurring and shall provide the basis for the development of acceptable exposure levels. In developing the exposure assessment, the Respondents shall develop reasonable maximum estimates of exposure for both current land use conditions and potential future land use conditions at the Site.
- vi) Risk Characterization - During risk characterization, the Respondents shall compare chemical-specific toxicity information, combined with quantitative and qualitative information from the exposure assessment, to measured levels of contaminant exposure levels and the levels predicted through environmental fate and transport modeling. These comparisons shall determine whether concentrations of contaminants at or near the Site are affecting or could potentially affect human health.
- vii) Identification of Limitations/Uncertainties - The Respondents shall identify critical assumptions (e.g., background concentrations and conditions) and uncertainties in the BHHRA.
- viii) Conceptual Site Model - Based on contaminant identification, exposure assessment, toxicity assessment, and risk characterization, the Respondents shall develop a Conceptual Site Model for the Site.

The Respondents shall prepare and submit to the EPA for review and approval, according to the schedule specified in the Final RI/FS Work Plan, a Draft BHHRA. Subject to the provisions in Section X of the AOC, the Respondents shall submit a Final BHHRA within thirty (30) calendar days after completing discussion of the EPA's comments on the Draft BHHRA (an in no event

later than sixty (60) calendar days after receipt of the EPA's approval of the Draft BHHRA.

b) **Baseline Ecological Risk Assessment:** The Respondents shall perform the Baseline Ecological Risk Assessment (BERA) concurrently with the BHHRA. The BERA shall conform to current EPA guidance (EPA 1992a, EPA 1992b, EPA 1993, EPA 1997, and EPA 2001b). The scoping of all phases of the BERA shall follow the general approach provided in the EPA's guidance (EPA 1997) and shall include discussions between the Respondents and the EPA's risk assessors and risk managers. The BERA shall conform to the general outline provided in the EPA's guidance (EPA 1997).

The eight steps in the Baseline Ecological Risk Assessment (BERA) process include:

- Step 1 - Screening-Level Problem Formulation and Ecological Effects Evaluation,
- Step 2 - Screening-Level Preliminary Exposure Estimate and Risk Calculation,
- Step 3 - Baseline Risk Assessment Problem Formulation,
- Step 4 - Study Design and Data Quality Objectives,
- Step 5 - Field Verification and Sampling Design,
- Step 6 - Site Investigation and Analysis of Exposure and Effects,
- Step 7 - Risk Characterization, and
- Step 8 - Risk Management.

The Respondents shall interact closely with the EPA's Remedial Project Manager and risk assessment staff assigned to the Site to ensure that draft deliverables are acceptable and major rework is avoided on subsequent submittals. The scope of the BERA will be determined via a phased approach as outlined in the EPA's guidance documents and documented in the following deliverables:

i) **Step 1, Screening Level Problem Formulation and Ecological Effects Evaluation** - The "Screening Level Problem Formulation and Ecological Effects Evaluation" step is part of the initial ecological risk screening assessment. For this initial step, it is likely that site-specific information for determining the nature and extent of contamination and for characterizing ecological receptors at the Site is limited. This step includes all the functions of problem formulation (Steps 3 and 4) and ecological effects analysis, but on a screening level. The results of this step will be used in conjunction with exposure estimates during the preliminary risk calculation in Step 2 (Screening-Level Preliminary Exposure Estimate and Risk Calculation).

For the screening level problem formulation, the Respondents shall develop a Conceptual Site Model that addresses these five issues: 1) environmental setting and contaminants known or suspected to exist at the Site, 2) contaminant fate and transport mechanisms that might exist at the Site, 3) the mechanisms of ecotoxicity associated with contaminants and likely categories of receptors that could be affected, 4) the complete exposure pathways that might exist at the Site, and 5) selection of endpoints to screen for ecological risk.

The next step in the initial ecological risk screening assessment will be the preliminary

ecological effects evaluation and the establishment of contaminant exposure levels that represent conservative thresholds for adverse ecological effects. Screening ecotoxicity values shall represent a no-observed-adverse-effect-level for long-term exposures to a contaminant. Ecological effects of most concern are those that can impact populations (or higher levels of biological organizations), and/or individual receptors for state and federally listed threatened/endangered or rare species; and include adverse effects on development, reproduction, and survivorship. For some of the data reported in the literature, conversions may be necessary to allow the data to be used for measures of exposure other than those reported. The Respondents shall consult with the EPA's Remedial Project Manager and risk assessors concerning any extrapolations used in developing screening ecotoxicity values.

ii) Step 2, Screening-Level Exposure Estimate and Risk Calculation - The "Screening-Level Exposure Estimate and Risk Calculation" comprises the second step in the ecological risk screening assessment for the Site. Risk is estimated by comparing maximum documented exposure concentrations with the ecotoxicity screening values from Step 1. At the conclusion of Step 2, the Respondents shall decide, with concurrence from the EPA, that either the screening-level ecological risk assessment is adequate to determine that ecological threats are negligible, or the process should continue to a more detailed ecological risk assessment (Steps 3 through 7). If the process continues, the screening-level assessment serves to identify exposure pathways and preliminary contaminants of concern for the BERA by eliminating those contaminants and exposure pathways that pose negligible risks.

To estimate exposures for the screening-level ecological risk calculation, on-site contaminant levels and general information on the types of biological receptors that might be exposed should be known from Step 1. Only complete exposure pathways should be evaluated and the highest measured or estimated on-site contaminant concentration for each environmental medium should be used to estimate exposures, thereby ensuring that potential ecological threats are not missed.

The Respondents will estimate a quantitative screening-level risk using the exposure estimates developed according to Step 2 and the screening ecotoxicity values developed according to Step 1. For the screening-level risk calculation, the hazard quotient approach, which compares point estimates of screening ecotoxicity values and exposure values, is adequate to estimate risk.

At the end of Step 2, the Respondents shall decide, with concurrence from the EPA, whether the information available is adequate to support a risk management decision. The three possible decisions at this point will be: 1) There is adequate information to conclude that ecological risks are negligible and therefore no need for remediation on the basis of ecological risk; 2) The information is not adequate to make a decision at this point, and the ecological risk assessment process will continue to Step 3; or 3) The information indicates a potential for adverse ecological effects, and a more thorough assessment is warranted. The Respondents shall document the decision and the basis for

it in a Draft Screening Level Ecological Risk Assessment (SLERA) Report and submit it to the EPA for review and approval according to the project schedule in the Final RI/FS WP. The Respondents shall submit a Final SLERA within thirty (30) days after completing discussion of the EPA's comments on the Draft SLERA Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft SLERA Report).

iii) Step 3, Baseline Risk Assessment Problem Formulation - The "Baseline Risk Assessment Problem Formulation" step of the BERA will refine the screening-level problem formulation and expands on the ecological issues that are of concern at the Site. In the screening-level assessment, conservative assumptions are used where site-specific information is lacking. In Step 3, the results of the screening assessment and additional site-specific information are used to determine the scope and goals of the BERA. Steps 3 through 7 will be required only if the screening-level assessment, in Steps 1 and 2, indicated a need for further ecological risk evaluation.

Problem formulation at Step 3 will include the following activities: a) refining preliminary contaminants of ecological concern; b) further characterizing ecological effects of contaminants; c) reviewing and refining information on contaminant fate and transport, complete exposure pathways, and ecosystems potentially at risk; d) selecting assessment endpoints; and e) developing a CSM with working hypotheses or questions that the Site investigation will address.

At the conclusion of Step 3, the Respondents shall submit a Draft BERA Problem Formulation (PF) Report to the EPA for review and approval according to the project schedule in the Final RI/FS Work Plan. The Respondents shall submit a Final BERA PF Report within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA PF Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA PF Report). This report shall discuss the assessment endpoints, exposure pathways, risk questions, and the CSM integrating these components. The products of Step 3 will be used to select measurement endpoints and to develop the BERA Work Plan (WP) and Sampling and Analysis (SAP) for the Site in Step 4.

iv) Step 4, Study Design and Data Quality Objective Process - The "Study Design and Data Quality Objective Process" step of the BERA will establish the measurement endpoints which complete the CSM in Step 3. The CSM will then be used to develop the study design and DQOs. The deliverables of Step 4 will be the BERA WP and SAP, which describe the details of the Site's investigation as well as the data analysis methods and DQOs. The Draft BERA WP shall describe the assessment endpoints, exposure pathways, questions and testable hypotheses, measurement endpoints and their relation to assessment endpoints, and uncertainties and assumptions. The Draft BERA SAP shall describe data needs; scientifically valid and sufficient study design and data analysis procedures; study methodology and protocols, including sampling techniques; data reduction and interpretation techniques, including statistical analyses; and quality

assurance procedures and quality control techniques. The Respondents shall submit to the EPA for review and approval a Draft BERA WP and SAP according to the schedule specified in the Final RI/FS Work Plan. The Respondents shall submit a Final BERA WP and SAP within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA WP and SAP (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA WP and SAP).

v) Step 5, Field Verification of Sampling Design - The "Field Verification of Sampling Design" step of the BERA process will ensure that the DQOs for the Site can be met. This step verifies that the selected assessment endpoints, testable hypotheses, exposure pathway model, measurement endpoints, and study design from Steps 3 and 4 are appropriate and implementable at the Site. Step 6 of the BERA process cannot begin until the Final BERA WP and SAP are approved by the EPA.

vi) Step 6, Site Investigation and Analysis Phase - The "Site Investigation and Analysis Phase" of the BERA process shall follow the Final BERA WP and SAP developed in Step 4 and verified in Step 5. The Step 6 results are then used to characterize ecological risks in Step 7.

The Final BERA WP for the Site investigation will be based on the CSM and will specify the assessment endpoints, risk questions, and testable hypotheses. During the Site investigation, the Respondents shall adhere to the DQOs and to any requirements for co-located sampling. The analysis phase of the BERA process will consist of the technical evaluation of data on existing and potential exposures and ecological effects at the Site. This analysis will be based on the information collected during Steps 1 through 5 and will include additional assumptions or models to interpret the data in the context of the CSM. Changing field conditions and new information on the nature and extent of contamination may require a change to the Final BERA SAP.

vii) Step 7 - Risk Characterization - The "Risk Characterization" step is considered the final phase of the BERA process and will include two major components: risk estimation and risk description. Risk estimation will consist of integrating the exposure profiles with the exposure-effects information and summarizing the associated uncertainties. The risk description will provide information important for interpreting the risk results and will identify a threshold for adverse effects on the assessment endpoints. At the end of Step 7, the Respondents shall submit a Draft BERA Report to EPA for review and approval according to the project schedule in the Final RI/FS WP. The Respondents shall submit a Final BERA Report within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA Report).

viii) Step 8 - Risk Management - "Risk Management" at the Site will be the responsibility of the EPA's Remedial Project Manager and risk assessor(s), who must balance risk reductions associated with cleanup of contaminants with potential impacts of the remedial actions themselves. In Step 7, a threshold for effects on the assessment

endpoint as a range between contamination levels identified as posing no ecological risk and the lowest contamination levels identified as likely to produce adverse ecological effects will be identified. In Step 8, the EPA's Remedial Project Manager and risk assessor(s) will evaluate several factors in deciding whether or not to clean up to within that range. This risk management decision will be finalized by the EPA in the Record of Decision for the Site.

Task 8: Treatability Studies

36. Treatability testing, if necessary, shall be performed by the Respondents to assist in the detailed analysis of alternatives. In addition, if applicable, testing results and operating conditions shall be used in the detailed design of the selected remedial technology. The following activities shall be performed by the Respondents:

- a) Determination of Candidate Technologies and of the Need for Testing - The Respondents shall identify candidate technologies for a treatability studies program.

The listing of candidate technologies will cover the range of technologies required for alternatives analysis. The specific data requirements for the testing program will be determined and refined during the characterization of the Site and the development and screening of remedial alternatives. The Respondents shall perform the following activities:

- i) Conduct of Literature Survey and Determination of the Need for Treatability Testing - The Respondents shall conduct a literature survey to gather information on performance, relative costs, applicability, removal efficiencies, operation and maintenance requirements, and implementability of candidate technologies. If practical technologies have not been sufficiently demonstrated, or cannot be adequately evaluated for this Site on the basis of available information, treatability testing may need to be conducted. Where it is determined by the EPA that treatability testing is required, and unless the Respondents can demonstrate to the EPA's satisfaction that they are not needed, the Respondents shall be required to submit a Treatability Study Work Plan to the EPA outlining the steps and data necessary to evaluate and initiate the treatability testing program.

- ii) Evaluation of Treatability Studies - Once a decision has been made to perform treatability studies, the Respondents and the EPA will decide on the type of treatability testing to use (e.g., bench versus pilot, etc.). Because of the time required to design, fabricate, and install pilot scale equipment as well as perform testing for various operating conditions, the decision to perform pilot testing shall be made as early in the process as possible to minimize potential delays of the Feasibility Study (Task 10). If the EPA determines that treatability studies are necessary, the Respondents shall submit a Draft Treatability Study Work Plan (TSWP), Sampling and Analysis Plan (SAP), and Health and Safety Plan within sixty (60) calendar days after the determination that treatability studies are necessary. Subject to the provisions in Section X of the AOC, the Respondents shall submit a Final TSWP, SAP, and HSP within thirty (30) days after completing discussion of the EPA's comments on the Draft TSWP (and in no event later than sixty (60) calendar days after receipt of the EPA's comments on the Draft TSWP).

The EPA will not approve the TS HSP but may provide comments to the Respondents.

The Respondents shall submit a Draft Treatability Study (TS) Report to the EPA for review and approval according to the project schedule in the Final Treatability Study Work Plan. Subject to the provisions in Section X of the AOC, the Respondents shall submit a Final TS Report within thirty (30) calendar days after completing discussion of the EPA's comments on the Draft TS Report (and in no event later than sixty (60) calendar days after receipt of the EPA's comments of the Draft TS Report. This report shall evaluate the technology's effectiveness and implementability in relation to the Preliminary Remediation Goals established for the Site. Actual results must be compared with predicted results to justify effectiveness and implementability discussions.

Task 9: Remedial Investigation Report

37. The Respondents shall prepare and submit a Remedial Investigation (RI) Report. The Respondents shall refer to the EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA 1988b), including Table 3-13 (Suggested RI Report Format), for the RI Report format and the required content. The Respondents shall discuss the RI Report format and the required content with the EPA's Remedial Project Manager early in the RI/FS process. The information shall include a summary of the results of the field activities to characterize the Site, classification of ground water beneath the Site, nature and extent of contamination for all media, and appropriate site-specific discussions for fate and transport of contaminants. The Respondents shall incorporate the results of Task 7 (Risk Assessments) into the RI Report, as appropriate.

The Respondents shall submit a Draft RI Report to the EPA for review and approval according to the project schedule in the Final RI/FS Work Plan. Subject to the provisions in Section X of the AOC, the Respondents shall submit a final RI Report within thirty (30) calendar days after completing discussion of the EPA's comments on the Draft RI Report (and in no event later than sixty (60) calendar days after receipt of the EPA's comments on the Draft RI Report).

Task 10: Feasibility Study

38. The Respondents shall perform a Feasibility Study (FS) as specified in this SOW. The FS shall include, but not be limited to, the development and screening of alternatives for remedial action, a detailed analysis of alternatives for remedial action, and submittal of Draft and Final FS Reports as follows:

- a) Development and Screening of Alternatives for Remedial Action - The Respondents shall develop an appropriate range of remedial alternatives that will be evaluated through development and screening.
- b) Detailed Analyses of Alternatives for Remedial Action - The Respondents shall conduct a detailed analysis of remedial alternatives for the candidate remedies identified during the screening process described in this Task. This detailed analysis shall follow the EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and

Feasibility Studies Under CERCLA" (EPA 1988b) and other appropriate guidance documents. The major components of the Detailed Analysis of Alternatives for Remedial Action shall consist of an analysis of each option against a set of evaluation criteria and a separate discussion for the comparative analysis of all options with respect to each other in a manner consistent with the NCP. The Respondents shall not consider state and community acceptance during the Detailed Analysis of Alternatives. The EPA will perform the analysis of these two criteria. At the conclusion of the Detailed Analysis of Alternatives and within the time frame specified in the project schedule in the Final RI/FS WP, the Respondents shall provide the EPA with a Draft FS Report as outlined below.

Draft Feasibility Study Report - The Respondents shall submit to the EPA, for review and approval, a Draft FS Report which documents the activities conducted during the Development and Screening of Alternatives and the Detailed Analyses of Alternatives, as described above, according to the project schedule in the Final RI/FS WP. The Respondents shall refer to the EPA's guidance document entitled, "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (EPA 1988b), specifically Table 6-5 (Suggested FS Report Format) for FS Report content and format.

c) Final Feasibility Study Report – The Draft FS Report shall provide the basis for the Proposed Plan developed by the EPA under CERCLA and shall document the development and analysis of remedial alternatives. The Draft FS Report may be subject to change following comments received during the public comment period on the EPA's Proposed Plan. The EPA will forward any comments pertinent to content of the Draft FS Report to the Respondents. Subject to the provisions in Section X of the AOC, the Respondents shall submit a Final FS Report within thirty (30) calendar days after completing discussion of the EPA's comments (and any public comments provided by EPA) on the Draft FS Report (and in no event later than sixty (60) calendar days after the receipt of comments from EPA on the Draft FS Report).

APPENDIX A
SCHEDULE OF DELIVERABLES/MEETINGS
STATEMENT OF WORK
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE

DELIVERABLE	DUE DATE (CALENDAR DAYS)
1. Scoping Phase Meeting	Meeting to be scheduled within fourteen (14) days after the effective date of the AOC.
2. Draft and Final RI/FS Work Plan (WP)	Draft due within sixty (60) days after the Scoping Phase Meeting. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft RI/FS Work Plan (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft RI/FS Work Plan)
3. Draft and Final RI/FS Sampling and Analysis Plan (SAP)	Draft due within sixty (60) days after the Scoping Phase Meeting. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft RI/FS SAP (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft RI/FS Work SAP)
4. RI/FS Site Health and Safety Plan	Plan due within sixty (60) days after the Scoping Phase Meeting.
5. Draft and Final Technical Memorandum on Modeling of Site Characteristics	Draft due when Respondents propose that modeling is appropriate. Final due within thirty (30) days after completing discussion of the EPA's comments on the draft memorandum (and in no event later than sixty (60) days after receipt of the EPA's comments on the draft memorandum).
6. Draft and Final Baseline Human Health Risk Assessment (BHHRA)	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft BHHRA (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BHHRA).
7. Draft and Final Screening Level Ecological Risk Assessment (SLERA) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft SLERA Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft SLERA Report).
8. Draft and Final Baseline Ecological Risk Assessment (BERA) Problem Formulation (PF) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA PF Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA PF Report).

APPENDIX A (CONTD.)
SCHEDULE OF DELIVERABLES/MEETINGS
STATEMENT OF WORK
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE

DELIVERABLES/MEETINGS	DUE DATES (CALENDAR DAYS)
9. Draft and Final Baseline Ecological Risk Assessment (BERA) Work Plan (WP) and Sampling and Analysis Plan (SAP)	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA WP and SAP (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA WP and SAP).
10. Draft and Final Baseline Ecological Risk Assessment (BERA) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft BERA Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft BERA Report).
11. Draft and Final Treatability Study (TS) Work Plan (WP), Sampling and Analysis Plan (SAP), and Health and Safety Plan	Draft due within sixty (60) calendar days after the determination that treatability studies are necessary. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft TSWP (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft TSWP).
12. Draft and Final Treatability Study (TS) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft TS Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft TS Report).
13. Draft and Final Remedial Investigation (RI) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft RI Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft RI Report).
14. Draft and Final Feasibility Study (FS) Report	Draft due as specified in the Final RI/FS WP. Final due within thirty (30) days after completing discussion of the EPA's comments on the Draft FS Report (and in no event later than sixty (60) days after receipt of the EPA's comments on the Draft FS Report).

APPENDIX B
GUIDANCE DOCUMENTS
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE

The following list comprises some of the guidance documents that are applicable to the Remedial Investigation and Feasibility Study process. The Respondents should consult with EPA's Remedial Project Manager for additional guidance and to ensure that the following guidance documents have not been superseded by more recent guidance:

U.S. Environmental Protection Agency (EPA) 1987a. "Data Quality Objectives for Remedial Response Activities." Office of Emergency and Remedial Response and Office of Waste Programs Enforcement. EPA/540/G-87/003. OSWER Directive No. 9335.0-7b. March 1987.

EPA 1987b. "Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements." Office of Emergency and Remedial Response. OSWER Directive No. 9234.0-05. July 9, 1987.

EPA 1988a. "CERCLA Compliance with Other Laws Manual." Office of Emergency and Remedial Response. OSWER Directive No. 9234.1-01. August 1988.

EPA 1988b. "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA." Office of Emergency and Remedial Response. EPA/540/G-89/004. OSWER Directive No. 9355.3-01. October 1988.

EPA 1989a. "CERCLA Compliance with Other Laws Manual: Part II. Clean Air Act and Other Environmental Statutes and State Requirements." Office of Emergency and Remedial Response. OSWER Directive No. 9234.1-02. August 1989.

EPA 1989b. "Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A)." Office of Emergency and Remedial Response. EPA/540/1-89/002. OSWER Directive No. 9285.7-01A. December 1989.

EPA 1991a. "Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors." Office of Emergency and Remedial Response. OSWER Directive No. 9235.6-03. March 1991.

EPA 1991b. "Risk Assessment Guidance for Superfund: Volume I, Human Health Evaluation Manual (Part B), Development of Risk-Based Preliminary Remediating Goals." Office of Emergency and Remedial Response. OSWER Directive No. 9285.7-01B. December 1991.

EPA 1991c. "Risk Assessment Guidance for Superfund: Volume I, Human Health Evaluation Manual (Part C), Risk Evaluation of Remedial Alternatives." Office of Emergency and Remedial Response. OSWER Directive No. 9285.7-01C. 1991.

EPA 1992a. "Guidance for Data Useability in Risk Assessment." Office of Emergency and Remedial

Response. OSWER Directive No. 9285.7-09A. April 1992 (and Memorandum from Henry L. Longest dated June 2, 1992).

EPA 1992b. "Supplemental Guidance to RAGS: Calculating the Concentration Term." Office of Emergency and Remedial Response. OSWER Directive No. 9285.7-081. May 1992.

EPA 1997. "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments." Office of Emergency and Remedial Response. EPA/540-R-97-006. June 5, 1997.

EPA 2000. "Guidance for the Data Quality Objectives Process." EPA QA/G-4, EPA/600/R-96/055. August 2000.

EPA 2001a. "EPA Requirements for Quality Assurance Project Plans." Office of Environmental Information. EPA QA/R-5. EPA/240/B-01/003. March 2001.

EPA 2001b. "Risk Assessment Guidance for Superfund, Volume 1 - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments). Final. Publication 9285.7-47. December 2001.

EPA 2001c. "Reuse Assessments: A Tool to Implement The Superfund Land Use Directive." OSWER 9355.7-06P", June 2001 available at

EPA 2002. "EPA Guidance for Quality Assurance Project Plans." EPA QA/G-5. EPA/240/R-02/009. December 2002.

EPA 2009a. "U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response Principles for Greener Cleanups" August 2009 available at
http://www.epa.gov/oswer/greenercleanups/pdfs/oswer_greencleanup_principles.pdf

EPA 2009b. "EPA Region 6 Clean and Green Policy" September 2009 available at
<http://www.cluin.org/greenremediation/docs/R6GRPolicy.pdf>

APPENDIX C
APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
CEDAR CHEMICAL CORPORATION SUPERFUND SITE

A preliminary list of probable Applicable or Relevant and Appropriate Requirements (ARARs) will be generated by the Respondents during the Remedial Investigation and Feasibility Study process. This list will be compiled according to established EPA guidance, research of existing regulations, and collection of site-specific information and data. Three types of ARARs will be identified:

- 1) Chemical-Specific ARARs: These ARARs are usually health- or risk-based numerical values or methodologies used to determine acceptable concentrations of chemicals that may be found in or discharged to the environment (e.g., maximum contaminant levels that establish safe levels in drinking water).
- 2) Location-Specific ARARs: These ARARs restrict actions or contaminant concentrations in certain environmentally sensitive areas. Examples of areas regulated under various Federal laws include floodplains, wetlands, and locations where endangered species or historically significant cultural resources are present.
- 3) Action-Specific ARARs: These ARARs are usually technology- or activity-based requirements or limitations on actions or conditions involving specific substances.

Chemical- and location-specific ARARs are identified early in the process, generally during the site investigation, while action-specific ARARs are usually identified during the Feasibility Study in the detailed analysis of alternatives.

ENCLOSURE 4

Reconciliation Pending

Itemized Cost Summary

CEDAR CHEMICAL CORPORATION, WEST HELENA, AR SITE ID = 06 NH

UNRECONCILED COST FROM 10/07/2006 THROUGH 01/07/2014

SPECIAL NOTICE FOR RI/FS

REGIONAL PAYROLL COSTS	\$70,030.44
REGIONAL TRAVEL COSTS	\$2,278.67
EMERGENCY REMOVAL CLEANUP (ERC) CONTRACT	
ENVIRONMENTAL QUALITY MANAGEMENT , INC. (68-S6-0201)	(\$1,127.82)
ENFORCEMENT SUPPORT SERVICES (ESS)	
TOEROEK ASSOCIATES, INC. (EPW10011)	\$103,053.08
INTERAGENCY AGREEMENT (IAG)	
DEPARTMENT OF JUSTICE (DW159219466)	\$4.67
RECORDS MANAGEMENT/ DOCUMENT CONTROL	
SCIENCE APPLICATION INT'L CORP. (EPR60801)	\$1,173.66
REGIONAL OVERSIGHT CONTRACT (REDI-SUBCLASS)	
DYNAMAC CORPORATION (EPW06077)	\$8,564.80
SUPERFUND COOPERATIVE AGREEMENT (SCA)	
ARKANSAS DEPARTMENT OF POLLUTION CONTROL & ECOLOGY (V00F65)	\$1,260.36
SUPERFUND TECH ASSIST AND RESPONSE TEAM (START)	
WESTON SOLUTIONS, INC. (68-W0-1005)	(\$14.88)
MISCELLANEOUS COSTS (MIS)	\$50.00
EPA INDIRECT COSTS	\$78,529.79
Total Site Costs:	\$263,802.77

ENCLOSURE 5

ENCLOSURE 5
Parties Receiving This Mailing

Chintan K. Amin
Sr. Counsel
Bayer Corporation
100 Bayer Road
Pittsburgh, Pennsylvania 15241

Edward Lewis
Syngenta
Fulbright & Jaworski L.L.P.
1301 McKinney Street
Suite 5100
Houston, Texas 77010

Jeffery S. Lang
Senior HSE Counsel
Rhodia Incorporated
8 Cedar Brook Drive
Cranbury, New Jersey 08512

Eve W. Barron, Senior Counsel
Environmental & Safety Law Group
Chevron U.S.A. Incorporated
1400 Smith Street, 5th Floor
Houston, Texas 77002

Shannon S. Callahan, Esq.
Authorized Representative
Rohm and Haas
100 Independence Mall West
Philadelphia, Pennsylvania 19106

Kevin Vaughan
Exxon Mobil Corporation
3225 Gallows Road, Room 3D0212
Fairfax, Virginia 22037

Helena Chemical Company
225 Schilling Boulevard
Collierville, Tennessee 38017

CC: Ken Rike
GB Biosciences Corporation
2239 Haden Road
Houston, Texas 77015

ENCLOSURE 6

File *Cylo Anilide*



THIS MEMORANDUM OF UNDERSTANDING is made and entered into as of the date last below written, by and between

Cedar Chemical Corporation, a Delaware corporation, having its principal place of business at Suite 2414 Clark Tower, 5100 Poplar Avenue, Memphis, Tennessee 38137 (hereinafter referred to as "CEDAR"),

and

Rhône-Poulenc Agro Matières Actives, a French "société en nom collectif" having its registered office at 14/20, rue Pierre Balzet - 68009 LYON-France (hereinafter referred to as "Rhône-Poulenc,"

Witnesseth:

- ◆ WHEREAS, Rhône-Poulenc desires to retain an independent third party contractor to toll manufacture for it Cyclanilide (1-(2,4-dichlorophenyliminocarbonyl)-cyclopropane carboxylic acid) (hereinafter "Product") from 2,4 DCA (2,4 Dichloro aniline) (hereinafter "DCA") and (cyclopropane- 1,1-dicarboxylic acid dimethyl ether (CPDM) (hereinafter "CPDM"), DCA and CPDM together with Sodium Methoxide (hereinafter "NaMO") being sometimes referred collectively herein as the "Raw Materials"; and
- ◆ WHEREAS, CEDAR owns and operates a chemical manufacturing facility located at West Helena, Arkansas which, following installation of certain capital improvements and equipment estimated to cost approximately \$750,000 (the "Capital Improvements"), is deemed capable of producing Product from DCA and CPDM utilizing Rhône-Poulenc's manufacturing process (the "Process") disclosed by Rhône-Poulenc to Cedar pursuant to a Secrecy Agreement between Rhône-Poulenc and Cedar dated as of May 14, 1999 (the "Secrecy Agreement"); and processes disclosed to Cedar pursuant to a Secrecy Agreement between Rhône-Poulenc and Cedar dated as of November 22, 1999 (the "Degussa Secrecy Agreement").
- ◆ WHEREAS, It is agreed that CEDAR and Rhône-Poulenc shall promptly commence negotiations with each other in good faith with the intent of reaching

an agreement (the "Agreement") satisfactory in form and substance to their respective managements and incorporating the terms and principles set forth herein.

NOW, THEREFORE, in consideration of the premises and the terms and conditions herein contained, the Parties agree as follows:

Article 1 - Purpose. The purpose of this Memorandum of Understanding is to set forth the terms and principles under which the parties will negotiate in good faith with the objective of entering into a toll manufacturing and supply Agreement whereby Cedar will produce Product for Rhone-Poulenc, and under which Cedar will initiate engineering studies and make equipment purchase commitments to enable it to construct and complete the Capital Improvements in time to begin producing Product for Rhone-Poulenc in the fourth quarter of the year 2000 in the quantities and in accordance with the terms and conditions set forth herein.

Article 2 - Agreement. The parties intend to negotiate in good faith with the objective of entering into an Agreement which will include among other terms, the following provisions:

A. **Term.** The initial term shall be from the date of execution of the Agreement through December 31, 2003, consisting of an initial partial year period (the "Partial Year Period") and three (3) contract years (the "Contract Years"). The Partial Year Period shall be from the effective date of the Agreement through December 31, 2000, the first Contract Year (the "First Contract Year") shall be from January 1, 2001 through December 31, 2001, the second Contract Year (the "Second Contract Year") shall be from January 1, 2002 through December 31, 2002, and the last Contract Year (the "Last Contract Year") of the initial term shall be the period from January 1, 2003 through December 31, 2003. Thereafter, the term of the Agreement shall be renewed for successive two year periods unless terminated by either party upon notice to the other not less than one (1) year prior to the end of the initial term or one year prior to the end of any extension of the initial term of Agreement; provided that the Agreement shall not be so extended unless, prior to the end of the initial term or of any extended term, the parties will have negotiated and reached mutual agreement in respect of the terms of such extension (including the price and quantity).

B. **Raw Materials.** Rhone-Poulenc shall be responsible for supplying Cedar, at its cost, the Raw Materials in sufficient quantities to enable Cedar to produce, in continuous campaigns, scheduled in accordance with the provisions of Article 2D, all quantities of Product ordered by Rhone-Poulenc, provided that in the event Cedar is able to obtain a more favorable price than Rhone-Poulenc for purchase of NaMO, following prior approval from Rhone-Poulenc, Cedar shall purchase such

quantities of NaMO as shall be required for it to perform hereunder, but for the account of Rhone-Poulenc. Cedar shall supply, at its cost, all raw materials other than the Raw Materials and Rhone-Poulenc shall reimburse Cedar its actual cost for the purchase of such raw material within thirty (30) days following the date of Cedar's invoice, provided that Cedar shall in all cases employ a reasonable competitive purchasing process.

C. **Product.** Rhone-Poulenc shall order and Cedar shall produce from Raw Materials supplied by Rhone-Poulenc not less than four hundred twenty (420) metric tons of Product during the initial term of this Agreement. Not less than eighty (80) metric tons of Product shall be produced by Cedar for Rhone-Poulenc during the Partial Year Period. Rhone-Poulenc currently estimates that it will order approximately one hundred sixty (160) metric tons of Product during the First Contract Year. In the event Rhone-Poulenc shall not have ordered and purchased from Cedar at least four hundred twenty (420) metric tons of Product by the end of the Second Contract Year, subject to the terms hereof, it shall order the balance of its four hundred twenty (420) metric ton commitment from Cedar for production during the Last Contract Year.

D. **Scheduling.** Rhone-Poulenc shall submit its good faith estimate of its orders for Product to be produced by Cedar in each calendar year during the term hereof by no later than July 1 of the previous calendar year, provided that such estimate will be for the purpose of facilitating scheduling of manufacture only and will not be binding, provided that a firm order will be issued by Rhone-Poulenc by October 31 of such year. The quantity of Product to be produced by Cedar in the Partial Year Period, as specified in Paragraph C, shall be considered a firm order, provided that, if Rhone-Poulenc is not able to import sufficient quantities of Raw Materials in the United States for reasons beyond Rhone-Poulenc's control, Rhone-Poulenc shall have no minimum volume commitment for the Partial Year Period. Except for Product to be produced during the Partial Year Period, no production campaign scheduled by the parties in any Contract Year, shall be for less than one hundred fifty (150) metric tons, and only one production campaign shall be scheduled in each Contract Year. If Rhone-Poulenc fails to issue a firm order for at least one hundred fifty (150) metric tons of Product for production by Cedar in any Contract Year, Cedar will be relieved of any responsibility to produce Product for Rhone-Poulenc during such Contract Year, and shall have unrestricted use of its manufacturing facility, including the Capital Improvements, during such Contract Year.

E. **Raw Material Usage.** Maximum usage factors applicable to consumption of Raw Materials (expressed in kilograms of Raw Materials consumed per kilogram of Product) shall be determined based on actual results achieved during the production of the initial eighty (80) metric tons of Product during the Partial Contract

Year. Thereafter, any over-consumption of Raw Materials (of more than 3.5%) shall be for Cedar's account. The savings on any under-consumption of Raw Materials of more than 3.5% shall be shared equally by the parties.

F. **Capital Improvements.** Cedar's cost of Capital Improvements shall be amortized over the minimum four hundred twenty (420) metric tons of Product to be produced by Cedar and paid for by Rhone-Poulenc during the initial term of the Agreement. For example, if the agreed cost of the Capital Improvements for which Rhone-Poulenc shall be responsible is \$750,000.00, \$1.79 for each kilogram of Product purchased by Rhone-Poulenc from Cedar hereunder shall be credited to Rhone-Poulenc's obligation to reimburse Cedar's cost of Capital Improvements. The foregoing notwithstanding, Rhone-Poulenc shall in any event be responsible for reimbursing Cedar at least twenty percent (20%) of its cost of Capital Improvements by the December 31, 2001; an additional forty percent (40%) of its cost of Capital Improvements by December 31, 2002; and the balance of its costs of Capital Improvements by December 31, 2003.

G. **Startup.** Rhone-Poulenc shall provide reasonable technical assistance to Cedar during startup of the initial campaign.

H. **Waste Disposal.** The parties shall cooperate to determine the most cost effective and environmentally sound method to dispose of wastes generated by production of Product. Costs of waste disposal shall be for Rhone-Poulenc's account, provided that the cost of the waste disposal charge to Rhone-Poulenc shall not exceed a mutually agreed amount per kilogram of Product which will be determined by the parties prior to execution of the Agreement.

I. **Toll Fees.** Cedar's toll manufacturing fees for production of Product for Rhone-Poulenc during the initial term shall be \$8.00 per kilogram for all Product order for production beginning in the Partial Year Period. Thereafter, Cedar's toll manufacturing fees for Product order by Rhone-Poulenc in a Contract Year shall be (i) \$7.00 per kilogram if Rhone-Poulenc orders and purchases from Cedar between one hundred fifty (150) metric tons and two hundred (200) metric tons of Product during such Contract Year; and (ii) \$8.50 per kilogram if Rhone-Poulenc orders and purchases from Cedar more than two hundred (200) metric tons during such Contract Year. The parties shall agree on an escalation formula by which the fees set forth above (which fees include amounts relating to the depreciation of the Capital Improvements referred to in Article 2(F) above) may be adjusted annually starting with the Second Contract Year to reflect increases in manufacturing costs. Cedar shall invoice Rhone-Poulenc at the end of each month during the term of the Agreement for all quantities of Product produced during such month, at the applicable toll manufacturing fee, and for all raw materials (including NaMO) purchased by Cedar hereunder. Such invoices shall be due and payable by Rhone-Poulenc thirty (30) days from date of invoice.

J. Miscellaneous. The Agreement shall contain additional terms and provisions normally contained in agreements of this nature.

Article 3 - Schedule of Target Dates.

A. It is the parties' objective that on or before March 15, 2000, Cedar shall submit to Rhone-Poulenc detailed engineering drawings describing the Capital Improvements, and its final estimated cost to install the Capital Improvements and Rhone-Poulenc shall have delivered to Cedar its detailed specifications for Product and Raw Materials.

B. The parties to agree to work together with the goal of reaching, on or before March 18, 2000, final agreement concerning the documents describing the Capital Improvements, including the agreed cost of same to be amortized over the initial term of Agreement. The parties shall also work together with the objective of reaching written agreement as to the Product and Raw Material specifications. Once mutually agreed upon, such documents will be used as Exhibits to the Agreement. The Capital Improvements documents shall include a schedule of the costs incurred and to be incurred by Cedar while negotiation of the Agreement is pending. All such costs and contractual commitments incurred by Cedar as set out in such schedule of costs shall be for Rhone-Poulenc's account, either for amortization and reimbursement in accordance with the provisions of Article 2F hereinabove, or, alternatively, in the event that, following good faith negotiations, either party determines that it cannot reach agreement with the other party on the terms of the Agreement, or in any event the Agreement is not executed by the parties on or before May 1, 2000, or, if the Agreement is executed by the parties, but is subsequently terminated for reasons other than for default by Cedar prior to the end of the initial term, such costs (to the extent incurred by Cedar and unamortized) shall be paid in full by Rhone-Poulenc to Cedar upon the occurrence of any such event.

C. On or before April 1, 2000, Rhone-Poulenc shall prepare and deliver to Cedar a proposed first draft of the Agreement.

D. The parties will work together with the objective of submitting a final draft of the Agreement prior to their respective managements for approval on or before May 1, 2000.

Article 4 - Nature of Agreement. The provisions of this Memorandum of Understanding do not constitute and will not give rise to any legally binding obligation on the part of each of the parties except in respect to Articles 3.B, 5 and 6, which the parties intend to be binding.

Article 5 - Confidentiality. The parties hereby agree that any information exchanged pursuant hereto shall be subject to the provisions of the Secrecy Agreement and shall be considered "Confidential Information" as such term is defined in the Secrecy Agreement, provided that: (i) the parties hereby agree to extend the term of the Secrecy Agreement until December 31, 2000 and (ii) any information exchanged pursuant hereto which would constitute Degussa-Huls Confidential Information as such term is defined in the Degussa Secrecy Agreement, shall be subject to the Degussa Secrecy Agreement

Article 8 - Dispute Resolution. Applicable Law. All disputes arising in connection with the present Memorandum of Understanding shall be finally settled under the rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.

The arbitration shall be conducted in the English Language in New York City.

This Memorandum of Understanding shall be construed in accordance with and governed by the laws of the State of New York.

Executed by the parties, acting by and through their authorized representatives, as of the dates appearing below.

CEDAR CHEMICAL CORPORATION

By: _____

Date: _____

RHÔNE-POULENC AGRO MATIÈRES ACTIVES

By: _____

Date: _____

ENCLOSURE 5
Parties Receiving This Mailing

Chintan K. Amin
Sr. Counsel
Bayer Corporation
100 Bayer Road
Pittsburgh, Pennsylvania 15241

Edward Lewis
Syngenta
Fulbright & Jaworski L.L.P.
1301 McKinney Street
Suite 5100
Houston, Texas 77010

CC: Ken Rike
GB Biosciences Corporation
2239 Haden Road
Houston, Texas 77015

Jeffery S. Lang
Senior HSE Counsel
Rhodia Incorporated
8 Cedar Brook Drive
Cranbury, New Jersey 08512

Eve W. Barron, Senior Counsel
Environmental & Safety Law Group

Chevron U.S.A. Incorporated
1400 Smith Street, 5th Floor
Houston, Texas 77002

Shannon S. Callahan, Esq.
Authorized Representative
Rohm and Haas
100 Independence Mall West
Philadelphia, Pennsylvania 19106

Kevin Vaughan
Exxon Mobil Corporation
3225 Gallows Road, Room 3D0212
Fairfax, Virginia 22037

Helena Chemical Company
225 Schilling Boulevard
Collierville, Tennessee 38017

Judith A. Reinsdorf
Executive Vice President & General
Counsel
Tyco Safety Products
2000 Auburn Drive Street
Beachwood, Ohio 44122

file cyclo Anilide



THIS MEMORANDUM OF UNDERSTANDING is made and entered into as of the date last below written, by and between

Cedar Chemical Corporation, a Delaware corporation, having its principal place of business at Suite 2414 Clark Tower, 5100 Poplar Avenue, Memphis, Tennessee 38137 (hereinafter referred to as "CEDAR"),

and

Rhône-Poulenc Agro Matières Actives, a French "société en nom collectif" having its registered office at 14/20, rue Pierre Balzet - 69009 LYON-France (hereinafter referred to as "Rhône-Poulenc"),

Witnesseth:

- ◆ WHEREAS, Rhône-Poulenc desires to retain an independent third party contractor to toll manufacture for it Cyclanilide (1-(2,4-dichlorophenylaminocarbonyl)-cyclopropane carboxylic acid) (hereinafter "Product") from 2,4 DCA (2,4 Dichloro aniline) (hereinafter "DCA") and (cyclopropane- 1,1-dicarboxylic acid dimethyl ether (CPDM) (hereinafter "CPDM"), DCA and CPDM together with Sodium Methoxide (hereinafter "NaMO") being sometimes referred collectively herein as the "Raw Materials"; and
- ◆ WHEREAS, CEDAR owns and operates a chemical manufacturing facility located at West Helena, Arkansas which, following installation of certain capital improvements and equipment estimated to cost approximately \$750,000 (the "Capital Improvements"), is deemed capable of producing Product from DCA and CPDM utilizing Rhône-Poulenc's manufacturing process (the "Process") disclosed by Rhône-Poulenc to Cedar pursuant to a Secrecy Agreement between Rhône-Poulenc and Cedar dated as of May 14, 1999 (the "Secrecy Agreement"); and processes disclosed to Cedar pursuant to a Secrecy Agreement between Rhône-Poulenc and Cedar dated as of November 22, 1999 (the "Degussa Secrecy Agreement").
- ◆ WHEREAS, It is agreed that CEDAR and Rhône-Poulenc shall promptly commence negotiations with each other in good faith with the intent of reaching

an agreement (the "Agreement") satisfactory in form and substance to their respective managements and incorporating the terms and principles set forth herein.

NOW, THEREFORE, in consideration of the premises and the terms and conditions herein contained, the Parties agree as follows:

Article 1 - Purpose. The purpose of this Memorandum of Understanding is to set forth the terms and principles under which the parties will negotiate in good faith with the objective of entering into a toll manufacturing and supply Agreement whereby Cedar will produce Product for Rhone-Poulenc, and under which Cedar will initiate engineering studies and make equipment purchase commitments to enable it to construct and complete the Capital Improvements in time to begin producing Product for Rhone-Poulenc in the fourth quarter of the year 2000 in the quantities and in accordance with the terms and conditions set forth herein.

Article 2 - Agreement. The parties intend to negotiate in good faith with the objective of entering into an Agreement which will include among other terms, the following provisions:

A. **Term.** The initial term shall be from the date of execution of the Agreement through December 31, 2003, consisting of an initial partial year period (the "Partial Year Period") and three (3) contract years (the "Contract Years"). The Partial Year Period shall be from the effective date of the Agreement through December 31, 2000, the first Contract Year (the "First Contract Year") shall be from January 1, 2001 through December 31, 2001, the second Contract Year (the "Second Contract Year") shall be from January 1, 2002 through December 31, 2002, and the last Contract Year (the "Last Contract Year") of the initial term shall be the period from January 1, 2003 through December 31, 2003. Thereafter, the term of the Agreement shall be renewed for successive two year periods unless terminated by either party upon notice to the other not less than one (1) year prior to the end of the initial term or one year prior to the end of any extension of the initial term of Agreement; provided that the Agreement shall not be so extended unless, prior to the end of the initial term or of any extended term, the parties will have negotiated and reached mutual agreement in respect of the terms of such extension (including the price and quantity).

B. **Raw Materials.** Rhone-Poulenc shall be responsible for supplying Cedar, at its cost, the Raw Materials in sufficient quantities to enable Cedar to produce, in continuous campaigns, scheduled in accordance with the provisions of Article 2D, all quantities of Product ordered by Rhone-Poulenc, provided that in the event Cedar is able to obtain a more favorable price than Rhone-Poulenc for purchase of NaMO, following prior approval from Rhone-Poulenc, Cedar shall purchase such

quantities of NaMO as shall be required for it to perform hereunder, but for the account of Rhone-Poulenc. Cedar shall supply, at its cost, all raw materials other than the Raw Materials and Rhone-Poulenc shall reimburse Cedar its actual cost for the purchase of such raw material within thirty (30) days following the date of Cedar's invoice, provided that Cedar shall in all cases employ a reasonable competitive purchasing process.

C. **Product.** Rhone-Poulenc shall order and Cedar shall produce from Raw Materials supplied by Rhone-Poulenc not less than four hundred twenty (420) metric tons of Product during the initial term of this Agreement. Not less than eighty (80) metric tons of Product shall be produced by Cedar for Rhone-Poulenc during the Partial Year Period. Rhone-Poulenc currently estimates that it will order approximately one hundred sixty (160) metric tons of Product during the First Contract Year. In the event Rhone-Poulenc shall not have ordered and purchased from Cedar at least four hundred twenty (420) metric tons of Product by the end of the Second Contract Year, subject to the terms hereof, it shall order the balance of its four hundred twenty (420) metric ton commitment from Cedar for production during the Last Contract Year.

D. **Scheduling.** Rhone-Poulenc shall submit its good faith estimate of its orders for Product to be produced by Cedar in each calendar year during the term hereof by no later than July 1 of the previous calendar year, provided that such estimate will be for the purpose of facilitating scheduling of manufacture only and will not be binding, provided that a firm order will be issued by Rhone-Poulenc by October 31 of such year. The quantity of Product to be produced by Cedar in the Partial Year Period, as specified in Paragraph C, shall be considered a firm order, provided that, if Rhone-Poulenc is not able to import sufficient quantities of Raw Materials in the United States for reasons beyond Rhone-Poulenc's control, Rhone-Poulenc shall have no minimum volume commitment for the Partial Year Period. Except for Product to be produced during the Partial Year Period, no production campaign scheduled by the parties in any Contract Year, shall be for less than one hundred fifty (150) metric tons, and only one production campaign shall be scheduled in each Contract Year. If Rhone-Poulenc fails to issue a firm order for at least one hundred fifty (150) metric tons of Product for production by Cedar in any Contract Year, Cedar will be relieved of any responsibility to produce Product for Rhone-Poulenc during such Contract Year, and shall have unrestricted use of its manufacturing facility, including the Capital Improvements, during such Contract Year.

E. **Raw Material Usage.** Maximum usage factors applicable to consumption of Raw Materials (expressed in kilograms of Raw Materials consumed per kilogram of Product) shall be determined based on actual results achieved during the production of the initial eighty (80) metric tons of Product during the Partial Contract

Year. Thereafter, any over-consumption of Raw Materials (of more than 3.5%) shall be for Cedar's account. The savings on any under-consumption of Raw Materials of more than 3.5% shall be shared equally by the parties.

F. Capital Improvements. Cedar's cost of Capital Improvements shall be amortized over the minimum four hundred twenty (420) metric tons of Product to be produced by Cedar and paid for by Rhone-Poulenc during the initial term of the Agreement. For example, if the agreed cost of the Capital Improvements for which Rhone-Poulenc shall be responsible is \$750,000.00, \$1.79 for each kilogram of Product purchased by Rhone-Poulenc from Cedar hereunder shall be credited to Rhone-Poulenc's obligation to reimburse Cedar's cost of Capital Improvements. The foregoing notwithstanding, Rhone-Poulenc shall in any event be responsible for reimbursing Cedar at least twenty percent (20%) of its cost of Capital Improvements by the December 31, 2001; an additional forty percent (40%) of its cost of Capital Improvements by December 31, 2002; and the balance of its costs of Capital Improvements by December 31, 2003.

G. Startup. Rhone-Poulenc shall provide reasonable technical assistance to Cedar during startup of the initial campaign.

H. Waste Disposal. The parties shall cooperate to determine the most cost effective and environmentally sound method to dispose of wastes generated by production of Product. Costs of waste disposal shall be for Rhone-Poulenc's account, provided that the cost of the waste disposal charge to Rhone-Poulenc shall not exceed a mutually agreed amount per kilogram of Product which will be determined by the parties prior to execution of the Agreement.

I. Toll Fees. Cedar's toll manufacturing fees for production of Product for Rhone-Poulenc during the initial term shall be \$8.00 per kilogram for all Product order for production beginning in the Partial Year Period. Thereafter, Cedar's toll manufacturing fees for Product order by Rhone-Poulenc in a Contract Year shall be (i) \$7.00 per kilogram if Rhone-Poulenc orders and purchases from Cedar between one hundred fifty (150) metric tons and two hundred (200) metric tons of Product during such Contract Year; and (ii) \$6.50 per kilogram if Rhone-Poulenc orders and purchases from Cedar more than two hundred (200) metric tons during such Contract Year. The parties shall agree on an escalation formula by which the fees set forth above (which fees include amounts relating to the depreciation of the Capital Improvements referred to in Article 2(F) above) may be adjusted annually starting with the Second Contract Year to reflect increases in manufacturing costs. Cedar shall invoice Rhone-Poulenc at the end of each month during the term of the Agreement for all quantities of Product produced during such month, at the applicable toll manufacturing fee, and for all raw materials (including NaMO) purchased by Cedar hereunder. Such invoices shall be due and payable by Rhone-Poulenc thirty (30) days from date of invoice.

J. **Miscellaneous.** The Agreement shall contain additional terms and provisions normally contained in agreements of this nature.

Article 3 - Schedule of Target Dates.

A. It is the parties' objective that on or before March 15, 2000, Cedar shall submit to Rhone-Poulenc detailed engineering drawings describing the Capital Improvements, and its final estimated cost to install the Capital Improvements and Rhone-Poulenc shall have delivered to Cedar its detailed specifications for Product and Raw Materials.

B. The parties to agree to work together with the goal of reaching, on or before March 15, 2000, final agreement concerning the documents describing the Capital Improvements, including the agreed cost of same to be amortized over the initial term of Agreement. The parties shall also work together with the objective of reaching written agreement as to the Product and Raw Material specifications. Once mutually agreed upon, such documents will be used as Exhibits to the Agreement. The Capital Improvements documents shall include a schedule of the costs incurred and to be incurred by Cedar while negotiation of the Agreement is pending. All such costs and contractual commitments incurred by Cedar as set out in such schedule of costs shall be for Rhone-Poulenc's account, either for amortization and reimbursement in accordance with the provisions of Article 2F hereinabove, or, alternatively, in the event that, following good faith negotiations, either party determines that it cannot reach agreement with the other party on the terms of the Agreement, or in any event the Agreement is not executed by the parties on or before May 1, 2000, or, if the Agreement is executed by the parties, but is subsequently terminated for reasons other than for default by Cedar prior to the end of the initial term, such costs (to the extent incurred by Cedar and unamortized) shall be paid in full by Rhone-Poulenc to Cedar upon the occurrence of any such event.

C. On or before April 1, 2000, Rhone-Poulenc shall prepare and deliver to Cedar a proposed first draft of the Agreement.

D. The parties will work together with the objective of submitting a final draft of the Agreement prior to their respective managements for approval on or before May 1, 2000.

Article 4 - Nature of Agreement. The provisions of this Memorandum of Understanding do not constitute and will not give rise to any legally binding obligation on the part of each of the parties except in respect to Articles 3.B, 5 and 6, which the parties intend to be binding.

Article 5 - Confidentiality. The parties hereby agree that any information exchanged pursuant hereto shall be subject to the provisions of the Secrecy Agreement and shall be considered "Confidential Information" as such term is defined in the Secrecy Agreement, provided that: (i) the parties hereby agree to extend the term of the Secrecy Agreement until December 31, 2000 and (ii) any information exchanged pursuant hereto which would constitute Degussa-Huls Confidential Information as such term is defined in the Degussa Secrecy Agreement, shall be subject to the Degussa Secrecy Agreement

Article 6 - Dispute Resolution. Applicable Law. All disputes arising in connection with the present Memorandum of Understanding shall be finally settled under the rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.

The arbitration shall be conducted in the English Language in New York City.

This Memorandum of Understanding shall be construed in accordance with and governed by the laws of the State of New York.

Executed by the parties, acting by and through their authorized representatives, as of the dates appearing below.

CEDAR CHEMICAL CORPORATION

By: _____

Date: _____

RHÔNE-POULENC AGRO MATIÈRES ACTIVES

By: _____

Date: _____

TOLL MANUFACTURING AGREEMENT

This Agreement is made and entered into this 26 day of January, 1984, by and between Chevron Chemical Company, a Delaware corporation, with offices in San Francisco, California (hereinafter referred to as "Chevron") and Vertac Chemical Corporation, a Delaware corporation, with offices in Memphis, Tennessee (hereinafter referred to as "Vertac").

W I T N E S S E T H:

WHEREAS, Vertac has received detailed information from Chevron for the manufacture of sulfurized molybdenum polyisobutenylsuccinimide ("Product") from polyisobutenylsuccinimide and Vertac has determined that Vertac has the ability to manufacture sulfurized molybdenum polyisobutenylsuccinimide at its plant in West Helena, Arkansas; and

WHEREAS, Chevron is willing to supply molybdc oxide and polyisobutenylsuccinimide to Vertac and pay Vertac a fee for manufacturing sulfurized molybdenum polyisobutenylsuccinimide therefrom.

NOW, THEREFORE, the parties agree as follows:

1.0 Quantity

Vertac shall manufacture and sell to Chevron and Chevron shall buy from Vertac, approximately 10,000 gallons of Product, and such other amounts as may be mutually agreed upon by Chevron and Vertac. *Vertac shall make its best efforts to produce* Said Product shall meet the specifications attached hereto as Exhibit 1. *to*

2.0 Manufacture

2.1 Chevron will supply molybdc oxide and polyisobutenylsuccinimide free of charge to Vertac at its plant in West Helena, Arkansas. Specifications for these raw materials are attached in Exhibit 2. Vertac will notify Chevron of the quantities of molybdc oxide and polyisobutenylsuccinimide needed for Vertac's performance hereunder in a timely fashion to permit commercial quantity shipments thereof to be made by Chevron to Vertac.

2.2 Vertac shall toll manufacture Product at its plant from molybdc oxide and polyisobutenylsuccinimide. Other than said molybdc oxide and polyisobutenylsuccinimide, Vertac shall supply all materials, equipment, utilities and manpower necessary for the manufacturing process. The process shall be carried out in accordance with Chevron's instructions and specifications as

set forth in Exhibit 2 ("Procedure"). The instructions and specifications in Exhibit 2 may, from time to time, be amended by Chevron upon approval by Vertac, which approval shall not be unreasonably withheld.

2.3 During the manufacture of Product, Chevron will provide to Vertac at Vertac's request, technical advice and consultation, said technical advice and consultation to be provided free of charge to Vertac and to the extent Chevron, in its sole but reasonable discretion deems necessary.

2.4 Vertac will maintain in confidence all data and technical information relating to the manufacture of Product made available to Vertac directly or indirectly by Chevron under the terms of this Agreement and will not use all or any portion of this data or technical information for any purpose other than the manufacture by Vertac for Chevron of Product and will not disclose all or any portion of said data or technical information to others without Chevron's prior written consent. The provisions of this Section 2.4 shall not apply to any data or technical information (a) which was developed by Vertac and in Vertac's possession prior to Vertac's first receipt of the same, directly or indirectly, from Chevron, (b) which is now, or hereafter becomes through no act or failure to act on Vertac's part,

published information generally known on a nonconfidential basis in the lubricating oil industry, or (c) which was heretofore or is hereafter furnished to Vertac by others as a matter of right without restriction on disclosure.

2.5 Vertac shall test all reactants and processing materials promptly upon delivery thereof to Vertac as set forth in Exhibit 5 to determine if such reactants and processing materials comply with Chevron's specifications. If such reactants or processing materials do not comply with Chevron's specifications, Vertac shall inform Chevron of such noncompliance and shall not use such reactants or processing materials in performance of this contract. If Chevron informs Vertac that it waives compliance with the purchase specifications as to a particular batch of reactants or processing materials, Vertac shall not be liable for failure of the Product manufactured using such particular batch of reactants or processing materials to meet manufacturing specifications provided that such failure results solely from the failure of such particular batch of reactants or processing materials to meet purchase specifications. Any waiver or failure to meet purchase specifications shall be singular in nature and shall not imply that a similar failure in a subsequent batch would be waived.

2.6 Vertac shall retain at least a one (1)-quart sample of the first batch of Product prepared and at least a one (1)-quart sample of each bulk lot of Product shipped to Chevron. Vertac shall retain said samples for a period of at least six (6) months and shall provide the sample and all data relating to the sample to Chevron upon request by Chevron.

2.7 Chevron has the right to inspect and analyze at Vertac's plant each batch of Product manufactured by Vertac for Chevron hereunder to determine if each batch meets the specifications set by Chevron. ~~Chevron's analytical tests shall be accepted as correct unless proved in error within thirty (30) days of the date upon which Vertac is notified of the test results. If a specific batch of Product fails to meet Chevron's manufacturing specifications, Chevron may, at its sole discretion, waive compliance with the manufacturing specifications as to such specific batch. Such a waiver shall be singular in nature and shall not imply that a similar problem in a subsequent batch would be waived. If Chevron does not waive compliance with the manufacturing specifications, the nonconforming Product shall~~ *JB*
RC

run performance results from Vertac's failure to follow Chevron's Operating Procedure attached hereto as Exhibit 2 so same may be reviewed at Chevron's request.

2.8 Vertac will reimburse Chevron for its actual raw material costs in the event of any loss, contamination or destruction of Chevron's raw materials or of Product while in Vertac's custody, unless caused by Chevron's negligence. Risk of

loss of Product shall pass to Chevron upon delivery to carrier. Vertac shall not be responsible for excessive raw material consumption or Product yields as a result of failure of the Procedure. For the purpose of computing damages in the event of loss or contamination, the polyisobutenylsuccinimide shall be valued at Chevron's cost plus transportation charges to Vertac's plant. For additional production beyond the first 10,000 gallons, a consumption standard for Chevron-owned materials will be specified and agreed upon in writing.

2.9 Vertac will forward month-end inventory records and daily-use records of all inventory owned by Chevron. These records, specified in Exhibit 6, should include all Product, all work in progress, polyisobutenylsuccinimide, and molybdc oxide. These records will be forwarded to:

Chevron Chemical Company
P.O. Box 70
Belle Chasse, LA 70037
Attn: Accounting Dept.

3.0 Delivery, Title and Risk of Loss

3.1 Vertac shall arrange for shipment of the sulfurized molybdenum polyisobutenylsuccinimide F.O.B. West Helena, Arkansas in accordance with Chevron's instructions, to Chevron at its Oak Point Plant in Belle Chasse, Louisiana or to such other location that Chevron may, at Chevron's sole discretion, designate.

Vertac shall provide a certificate of analysis to Chevron with each shipment of Product hereunder based on methods outlined in Exhibit *5 JPS*

3.2 Title to all Product and all *molybdenum oxide and* polyisobutenylsuccinimide shall at all times remain in Chevron. Vertac shall not impose or permit to be imposed upon any of the Product or polyisobutenylsuccinimide within the custody or control of Vertac any liens or encumbrances whatsoever. *RC JPS*

3.3 Vertac shall be responsible for all loss, contamination, or damage of whatsoever nature to the Product or polyisobutenylsuccinimide while in the custody of Vertac at the plant, *unless caused by Chevron's negligence.* *RC JPS*

4.0 Price

the quantity of product stated in Section
4.1 The toll manufacturing fee for *Product* processed by Vertac for Chevron ~~by Vertac~~ under this Agreement shall be \$4.35 per gallon of Product F.O.B. West Helena, Arkansas. This fee of \$4.35 per gallon includes all costs of raw materials, *RC* (except for the cost of polyisobutenylsuccinimide and molybdenic oxide to be supplied by Chevron,) labor, equipment requirements, utilities, filter cake disposal, testing, and supervision. The price and shipment schedules for additional quantities of Product ordered by Chevron shall be mutually agreed upon by the parties at the time of each order. If the parties do not agree

RC JB
for any additional quantities of Product
to a price and delivery schedule at the time of the order, either party, upon written notice given to the other within at least two (2) weeks of the date of the order, may terminate this Agreement as of the date of the order.

4.2 All payments by Chevron to Vertac for the Product shall be made without discount or deduction within thirty (30) days of receipt of invoices issued by Vertac.

5.0 Taxes

Vertac shall assume responsibility and pay for all personal property taxes assessed by any governmental authority with respect to the plant facilities and raw materials owned by Vertac. Chevron shall be responsible for and pay any personal property taxes assessed on raw materials or finished Product owned by Chevron in Vertac's custody.

6.0 Related Agreement

This Agreement is subject to the provisions of that certain agreement dated November 11, 1983 between Chevron Research Company and Vertac ("Said Agreement"), to the extent that the terms "Said Products", "Said Purposes", and "Said Information" are applicable to sulfurized molybdenum polyisobutenylsuccinimide.

Said Agreement is hereby incorporated by reference and made a part of this Agreement as Exhibit 3, the same as if fully set forth herein.

7.0 Excuses for Nonperformance

7.1 Neither party shall be in breach of its obligations hereunder to the extent that performance is prevented, or delayed as a result of any of the following contingencies:

- (i) any cause beyond the reasonable control of the party concerned;
- (ii) labor disturbance, whether involving the employees of the party concerned or otherwise, and regardless of whether the disturbance could be settled by acceding to the demands of a labor group;
- (iii) compliance with any ordinance, statute, regulation or order hereinafter enacted or issued on behalf of any government or governmental department or agency (including but not limited to EPA, OSHA).

7.2 In the event that Vertac's performance under Section 3.1 of this Agreement is delayed by at least sixty (60) days as a result of any occurrence provided for in Section 7.1, Chevron shall, at Chevron's sole discretion, have the right to terminate this Agreement.

7.3 Nothing in this section shall excuse Chevron from its obligations to make payments when due as provided above.

8.0 Warranties

8.1 Vertac warrants that the Product ^{manufactured for RC} sold to Chevron hereunder will ^{be manufactured in accordance with the procedure} conform with the specifications referred to in Exhibit ² ^{procedure}, as said specifications shall from time to time be amended upon reasonable notice to and written agreement of Vertac; that the Product has been carefully manufactured, packaged, labeled and shipped in conformance with all applicable governmental laws, ordinances, rules, regulations, executive orders, and official statements of policy; ^{of which Vertac has knowledge RC JP} and that the Product has no unspecified impurities or properties which are detectable by the best current and generally available technology and analytical practices and which are either outside typical ranges or hazardous to man or the environment, unless said impurities are introduced in the raw materials supplied hereunder by Chevron. Vertac expressly disclaims all warranties of merchantability or fitness for a particular purpose with respect to the Product.

9.0 Indemnity

9.1 Vertac shall indemnify and hold harmless Chevron, Chevron's affiliates and the agents and employees of Chevron and Chevron's affiliates ("indemnitees"), from and against any and all loss, damage, injury, liability and claims thereof for injury to or death of a person, including an employee of Vertac or an indemnitee, or for loss of or damage to property, including property of Vertac or an indemnitee, resulting from Vertac's performance hereunder, except where such loss, damage, injury, liability or claim is the result of the negligence or willful misconduct of an indemnitee and is not contributed to by any act of, or by omission to perform some duty imposed by law or contract on, Vertac, its agents or employees. Subject to the warranties set forth in Section 8.0, Chevron shall indemnify Vertac against all loss, damage, injury, liability and claims arising out of the shipment, handling or use of Product after delivery to Chevron's designated carrier. Chevron's affiliates, as used herein, means Standard Oil Company of California, a Delaware, U.S.A. corporation and any company (other than Chevron) whose stock carrying the right to vote for directors is fifty percent (50%) or more owned or controlled, directly or indirectly, by said Standard Oil Company of California.

10.0 Insurance

Without in any way limiting liability of Vertac pursuant to Section 9.0 hereof, Vertac shall maintain the following insurance at Vertac's expense:

(a) Workers' Compensation and Employers' Liability Insurance as prescribed by applicable law, including insurance covering liability under the Longshoremen's Harbor Workers' Act and the Jones Act, if applicable.

(b) Comprehensive General Liability (Bodily Injury and Property Damage) Insurance including the following coverages:

- (i) Broad Form Property Damage Liability Insurance;
- (ii) Contractual Liability Insurance to cover liability assumed under this Agreement;
- (iii) Product Liability and Completed Operations Liability Insurance; and
- (iv) Sudden and Accidental Pollution Insurance.

The limit of liability for such insurance shall be not less than \$1,000,000 combined single limit per occurrence.

(c) Automobile Bodily Injury and Property Damage Liability Insurance. Such insurance shall extend to owned, non-owned, and hired automobiles, trucks, buses, vans and other motorized vehicles used in the performance of this Agreement. The limits of liability of such insurance shall be not less than \$250,000 per person/\$500,000 per occurrence for bodily injury and \$100,000 per occurrence for property damage.

The above insurance shall include a requirement that the insurer provide Chevron with at least thirty (30) days' advance written notice prior to the effective date of any cancellation or material change in the insurance. The insurance specified in Subsection (a) above shall contain a waiver of subrogation against Chevron and its affiliates. The insurance specified in Subsections (b) and (c) above shall name Chevron and its affiliates as additional insureds with respect to operations performed hereunder, provide that said insurance is primary coverage with respect to all insureds, and contain a Standard Cross-Liability Endorsement or Severability of Interest Clause.

Vertac shall provide Chevron with certificates or other documentary evidence of the above insurance satisfactory to Chevron.

11.0 Assignability

This Agreement is not assignable by either party without the written consent of the other party, which consent shall not be unreasonably withheld, and any attempted assignment without such consent shall be void; provided, however, that Chevron may assign its rights hereunder (but not its obligations) to Standard Oil Company of California, a Delaware corporation, or any company not less than fifty percent (50%) of whose outstanding stock (having the right to vote for or appoint directors) is owned or controlled directly or indirectly through one or more intermediaries by Standard Oil Company of California. This Agreement shall terminate in the event of any voluntary or involuntary receivership, bankruptcy or insolvency proceedings affecting either party.

12.0 Hazards

The reactants and/or products are or may become hazardous. Vertac shall inform and familiarize all employees, agents, contractors and customers who may handle these materials of all hazards pertaining to them, goods made therefrom, all uses or applications thereof, containers in which the materials may be shipped or stored, equipment with which it is used and/or handled and any Federal, State and local laws and regulations relating

thereto. Vertac undertakes to label all applicable containers as appropriate to give due warning and protection to its employees, customers and others from such hazards, to inform, protect and train its agents and employees and to urge its contractors and customers to inform, protect and train their employees and agents in the safe and proper uses, handling and labeling of these materials. In so doing, Vertac may rely on Chevron for the accuracy of the specific safety information actually furnished by Chevron as of the time furnished but for nothing further.

Chevron has furnished all available Material Information Bulletins for the Product hereunder and has thereby advised Vertac of the known hazards associated with said Product.

13.0 Independent Contractors

Nothing in this Agreement shall be construed to constitute Chevron or Vertac as a partner, joint venturer, agent or other representative of the other. Each is an independent contractor retaining complete control over and complete responsibility for its own operations and employees. Nothing in this Agreement shall be construed to grant either party any right or authority to assume or create any obligation on behalf or in the name of the other; to accept summons or legal process for the other; or to bind the other in any manner whatsoever.

14.0 Waste Disposal

It is anticipated that no hazardous wastes shall be generated during the performance of this Agreement. However, Vertac shall faithfully follow Chevron's instructions with regard to disposing of any waste, including the disposal thereof in a Class I site approved by Chevron, if deemed necessary in Chevron's sole opinion. Vertac shall furnish Chevron with copies of all manifests and documents prepared for the disposal of any wastes generated in the performance of this Agreement. In the event that faulty Procedures or defective raw materials supplied to Vertac by Chevron result in the generation of extraordinary wastes, either in nature or amount, other than the normal wastes outlined in Exhibit 8, then Chevron shall be responsible for the costs of disposal of such extraordinary wastes, provided that Vertac promptly notifies Chevron and follows Chevron's instructions in regard to the disposal thereof.

15.0 Default

15.1 If either party defaults in performance of any provision of this Agreement and fails to remedy such default and indemnify the other party against the consequences of such default within thirty (30) days after receipt of notice from the

other party, specifying the nature and occurrence of the default, such other party may terminate this Agreement by written notice to the defaulting party.

15.2 All rights and remedies are cumulative and election of one right or remedy shall not exclude the other.

15.3 The waiver by one party of any breach or any portion of this Agreement shall not be deemed to be a waiver of any subsequent or continuing breach of such provision or of the breach of any other provision.

16.0 Duration of Agreement - Termination

16.1 Termination of this Agreement pursuant to any provision hereof shall be without prejudice to the terminating party's rights against the other party accrued prior to the date of termination.

16.2 Termination of this Agreement shall not terminate the obligations and rights of Chevron and Vertac under Said Agreement, or the obligations of Vertac under Section 2.3 hereof.

17.0 Entirety of Agreement

This Agreement is executed and delivered with the understanding that together with the aforementioned Said Agreement between Chevron Research Company and Vertac dated November 11,

1983 (Exhibit 3), it integrates and embodies the entire agreement between the parties concerning the manufacture of sulfurized molybdenum polyisobutenylsuccinimide and there are no prior representations, warranties, or agreements relating thereto.

18.0 Notices

All notices by either party to the other required to be given under this Agreement shall be by telex, confirmed in writing and shall be deemed given upon receipt. Notices shall be sent to Chevron at

Chevron Chemical Company
575 Market Street
San Francisco, CA 94105
Telex No.: 910-372-7340

and to Vertac at

Vertac Chemical Corp.
Suite 2414
5100 Poplar Avenue
Memphis, TN 38137
Telex No.: 53927

or to such other address as one party may designate to the other by notice as aforesaid.

19.0 Nondiscrimination

In connection with the performance of work under this Agreement Vertac agrees to comply with all the applicable provisions contained in Exhibit 4 attached hereto and by reference made a part hereof. All references in Exhibit 4 to contractor shall be deemed to refer to Vertac.

20.0 Governing Law

This Agreement and its interpretation, performance, and enforcement shall be governed by the local law of the State of Arkansas.

21.0 Right to Audit

21.1 Vertac shall maintain true and correct records in connection with the work and all transactions related thereto and shall retain all such records (see Exhibit 6) for at least twenty-four (24) months after the work is completed.

21.2 No director, employee or agent of Vertac shall give or receive any commission, fee, rebate, gift or entertainment of significant cost or value in connection with the work, or enter into any business arrangement with any director, employee or agent of Chevron or any affiliate other than as a representative

of Chevron or its affiliate, without prior written notification thereof to Chevron. Vertac shall promptly notify Chevron of any violation of this paragraph and any consideration received of such violation shall be paid over or credited to Chevron. Additionally, if any violation of this paragraph occurring prior to the date of this Agreement resulted directly or indirectly in Chevron's consent to enter into this Agreement with Vertac, Chevron may, at Chevron's sole option, terminate this Agreement at any time and, notwithstanding any other provision of this Agreement, pay no compensation or reimbursement to Vertac whatsoever for any work done after the date of termination. An independent certified auditor suitable to Vertac may be requested by Chevron to confirm whether or not the provisions of this paragraph have been complied with at Chevron's expense. No other information may be released by such auditor, however, without the consent of Vertac.

21.3 Vertac shall assist Chevron in making the above audits.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized respective officers.

CHEVRON CHEMICAL COMPANY

By J. P. Schaefer
Title VICE PRESIDENT
Date Jul 8, 1984

ATTEST:

Date _____

VERTAC CHEMICAL CORPORATION

By Ron Chenev
Title Vice President
Date 1.26.84

ATTEST:

John C. Bumpers, V.P.
Date 1/26/84

Attachments: Exhibits 1-8

TOLL PROCESSING AGREEMENT FOR
CTBL

This Agreement has been entered into effective as of August 30, 1991, by and between

Chevron Chemical Company
6001 Bollinger Canyon Road
San Ramon, CA 94583
("Chevron") and

Cedar Chemical Corporation
5100 Poplar Ave., 24th Floor
Memphis, Tennessee 38137
("Cedar")

The Premises of this Agreement are that:

A. Cedar has the expertise and, when modified hereunder, the facilities for toll processing Product, CTBL conforming to the specifications set forth in Exhibit A hereto, and processed in accordance with the manufacturing, operating and engineering specifications and procedures set forth in Exhibit B hereto.

B. Cedar desires to produce and deliver to Chevron and Chevron desires to receive from Cedar, Product, in accordance with the terms and conditions of this Agreement.

Accordingly, with the intent to be bound hereby, the parties agree to the following terms and conditions:

1. Definitions

When used in this Agreement the terms listed in this Section 1 shall have the following meanings:

1.1 "Product" means CTBL, as set forth in Exhibit A conforming to the Product Specifications set forth in Exhibit A. Chevron reserves the right to amend the specifications in Exhibit A upon reasonable notice to Cedar and upon mutual agreement thereof.

1.2 "Product Specifications" means Chevron's specifications for CTBL as set forth in Exhibit A.

1.3 "Manufacturing Specifications" means the manufacturing, operating and engineering specifications and procedures set forth in Exhibit B.

1.4 "Process" means all those actions required to carry out the purposes of this Agreement in accordance with Chevron's said Manufacturing Specifications, including by way of example and not limitation: the receiving, unloading and storing of all Raw Materials; conversion of Raw Materials into Product; packaging the Product and preparing Product for shipment; and performing other operations ancillary to such activities as mutually agreed.

1.5 "Term" means the period of time described in Section 10 herein.

1.6 "Plant" means Cedar's manufacturing facility located in West Helena, Arkansas in which the Product will be processed.

1.7 "Raw Materials" means those raw materials or other supplies listed on Exhibit C hereto for use in the Processing.

1.8 "Contingency" means an occurrence affecting the performance of either Party which results in the failure of Cedar to Process and ship the Product to Chevron: (1) if such failure is caused or occasioned by Act of God, the public enemy, fire, explosion, equipment failure, flood, earthquake, tornado, hurricane, war, riot, sabotage, or other similar catastrophe or threat thereof, accident, embargo, strike, lockout or other industrial disturbance, shortage, delay or failure of supply of materials from the then contemplated source of supply, power, utilities, labor, fuel or equipment, interruption of or delay in transportation or any other event or circumstance whether of like or different character to the foregoing beyond the reasonable control of the party so failing; or (2) if such failure is caused or occasioned by compliance with any order, regulation or request of any Federal, state or municipal government or any officer, department, agency or committee thereof, including requisition, allocation or establishment of priorities, or any request authorized by such governmental authority or received from any manufacturer of material used by the Government; or (3) if such failure is caused or occasioned by the cancellation, suspension, or material adverse modifications to any of the licenses to operate, or the inability to operate, the Plant in compliance with applicable governmental regulations.

2. Raw Materials

2.1 Except as provided in paragraph 2.2, Chevron shall deliver to Cedar an adequate supply of Raw Materials to be used by Cedar as listed and described in Exhibit C hereto. For each Processing campaign, Chevron and Cedar shall agree to an Operating Schedule for the performance of the respective obligations under this Agreement. The parties agree that subject to issuance of all necessary permits, the initial processing campaign shall begin on or about November 1, 1991, in accordance with Section 3.4.

In the event Chevron fails to deliver the Raw Materials to Cedar in accordance with such schedule, other than as a result of a Contingency, and the delay was not contributed to by Cedar, Chevron shall pay to Cedar a delay fee in the amount of (i) \$6,000 per day for each day of delay.

2.2 The parties may agree from time to time that Cedar shall procure certain of the Raw Materials rather than Chevron. A written list of Raw Materials which Cedar will procure will be developed each year, and the cost for each will be mutually agreed upon. The Raw Materials to be provided by Cedar for the first Processing campaign are set forth in the attached Exhibit C. Chevron will reimburse Cedar for the actual cost of Raw Materials up to the agreed cost, but no more, unless the actual cost exceeds the agreed cost by ten percent (10%). Cedar agrees to inventory Raw Materials to the limits of the installed capacity. If requested by Chevron, Cedar will, at Chevron's expense, install adequate storage for inventory of Product.

2.3 Cedar shall examine and sample the Raw Materials upon the receipt thereof from Chevron or Chevron's supplier and determine from the certificate of analysis if the Raw Materials meet the specifications as described in Exhibit C hereto. In addition, Cedar shall also analyze the raw material CTBA, in accordance with procedures outlined in Exhibit D. Cedar shall report any apparent shortage, contamination or other defect in the Raw Materials to Chevron immediately upon becoming aware thereof but in no event later than fifteen (15) days from the receipt thereof. Cedar shall retain samples of all Raw Materials for one year after receipt.

2.4 Chevron and Cedar anticipate that the Raw Materials will be Processed into Product in accordance with the usage ratios set forth in Exhibit B hereto.

Recognizing that such usage ratios have not been developed in Cedar's West Helena location, the parties agree that Cedar shall attempt to Process the Product in conformity with such usage ratios as described in Exhibit B. (After the first 100,000 lbs. of the first processing campaign standards will then be set based on actual experience and good faith consultation between Cedar and Chevron for subsequent processing). Thereafter, should Chevron direct any material change in the method of Processing the Product, requiring the defining and establishing of new usage ratios, Cedar shall use its best efforts to Process 100,000 lbs. of Product using the new procedures with no liability for over standard usage of Raw Materials.

2.5 Raw Materials remaining in possession of Cedar on the effective date of termination of this Agreement shall be returned to Chevron, or otherwise removed from the Plant in a manner which shall be mutually agreed to by Cedar and Chevron, within ninety (90) days after termination.

2.6 Blanket orders for Raw Materials to be used in the Processing of Product will be placed by Chevron's Purchasing Department in San Ramon, California. Cedar will be provided with Chevron's blanket order release forms and receiving sheets to apply against the blanket orders for release of Raw Materials directly to the Plant. Invoices for Raw Material shipments made to Cedar as well as the original and accounting copy portion of the blanket order release forms should be directed for payment to:

Chevron Chemical Company
Accts. Payable Dept.
940 Hensley Street
Richmond, CA 94804

Inquiries by Cedar regarding purchases of Raw Materials shall be directed to:

Valent U.S.A. Corporation
P. O. Box 8025
Walnut Creek, CA 94596-8025
Attention: Manager, Marketing Services
Phone: (415) 256-2772
Fax: (415) 256-2776

Chevron shall request that Cedar is to be provided with certification of analysis by the suppliers for each shipment of Raw Material. Shipments not accompanied by such certification are to be rejected and notification of such rejection shall forthwith be made to Valent as noted above.

2.7 Chevron and Cedar anticipate that the Raw Materials will be Processed into Product in accordance with the usage ratios set forth in Exhibit B hereto. After usage ratios have been established with Cedar (Section 2.4), Cedar shall be entitled to a bonus of fifty percent (50%) of the Raw Material savings which is in excess of three percent (3%) below the usage ratios. Cedar shall reimburse Chevron for all Raw Material costs greater than three percent (3%) above the usage ratios. Settlement of the Raw Materials usage and of accounts and payment of the bonus or reimbursement shall be at the end of the performance of each Processing campaign hereunder and after all usages and production have been verified. Chevron shall permit Cedar to audit its raw material costs upon reasonable notice, for purposes of this paragraph.

3. Processing Services

3.1 Cedar shall Process the Raw Materials for Chevron subject to the terms and conditions stated herein, in the quantities as established pursuant to this Agreement and in accordance with the Manufacturing Specifications or such procedures as may be provided by Chevron during the course of the term hereof. Cedar shall retain representative samples of each batch of Product for a period of one year.

3.2 Cedar shall supply all equipment, utilities and manpower necessary for Processing Product and shipping Product to Chevron.

3.3 In the Processing conducted hereunder, Cedar shall establish and maintain appropriate procedures to prevent loss, injury or damage to the environment and to people who may be exposed to the Raw Materials, reaction mixtures during Processing, Product, and all by-products and waste products. Upon request, Cedar will furnish to Chevron copies of all procedures that Cedar shall have established with respect to safety, health and environmental protection in so far as it affects the Product and Cedar's performance hereunder. Cedar will in good faith consider and implement any reasonable suggestions made by Chevron relating to such procedures. Cedar shall commence the first processing campaign, hereunder on or about November 1, 1991.

3.4 During the first Processing campaign of this Agreement, Cedar shall Process for Chevron 275,000 pounds of CTBL (100% basis). Cedar shall not warrant product to meet the specifications identified in Exhibit A until it has produced the first 100,000 pounds of Product. Thereafter, Cedar shall warrant all Product to meet said specifications and shall be bound by such Raw Material usage ratios as the Parties shall adapt in accordance with Section 2.4.

Cedar shall commence the first processing campaign hereunder on or about November 1, 1991 and shall Process the Product at the rate mutually agreed to until the quantity ordered by Chevron hereunder has been Processed. During the first Processing campaign, Cedar shall make its best efforts to conclude all CTBL Active Isomer production by December 5, 1991. Such Processing obligation is subject to Cedar being timely furnished with Raw Materials so as to meet scheduled production.

3.5 Not later than October 1, 1991, Chevron may: (i) request an increase in its actual requirements of Product by up to 50,000 lbs. of CTBL, subject to Cedar's consent thereto, which consent shall not be unreasonably withheld conditioned or delayed, if Cedar has any unused capacity at the Plant, and/or; (ii) reduce its actual requirements under this Agreement by up to 50,000 lbs. of CTBL without penalty. Any further reduction by Chevron below 240,000 lbs. of CTBL during the first Processing campaign shall be subject to the delay fee for each pound of the shortfall specified in subsection 4.4 hereof. Such delay fee shall be Chevron's sole liability to Cedar for decreasing Chevron's order for Product.

3.6 Processing campaigns after the first Processing campaign shall include Chevron's entire annual requirements of CTBL and shall be scheduled as mutually agreed upon. Future campaigns may also include the Processing of Manufacturing Use Lactofen Concentrate from CTBL Raw Material if mutually agreed to by Cedar and Chevron.

4. Fees

4.1 Chevron shall pay to Cedar a fee for Processing the Product computed from the following schedule hereunder. All prices are F.O.B. Cedar's Plant, West Helena, Arkansas, delivered into bulk shipping vessels.

4.1.1 All Product packed into drums shall carry a surcharge of \$0.05 per pound of active isomer.

4.1.2 The processing fee during the initial campaign shall be \$14,000/day for each day or part day of production hereunder plus \$70,000 for plant preparation and clean-up, as described in Exhibit E, however the per diem processing fee shall be adjusted pro rata to the extent that the rated capacity of that portion of the Plant used to produce Product shall exceed or be less than 9,483 pounds per day. At such time as the parties agree on the final piping and instrumentation design (P&ID) identified in Exhibit F, the Parties shall also agree on the final rated capacity of such facilities for purposes of calculating the fee hereunder.

4.1.3 Chevron shall pay to Cedar \$70,000 for plant preparation and clean-up as per Exhibit E each year at the conclusion of the processing campaign.

4.1.4 The processing fee shall be adjusted by mutual agreement effective on August 1st of each contract year.

4.2 All wastes generated during the performance of this Agreement including containers containing Raw Materials shall be disposed of by Cedar in accordance with all applicable laws and in a manner approved by Chevron. Chevron shall approve the selection of the industrial landfill used for disposal of Process waste, bills of lading, waste manifests and/or any other related documentation or procedures. Any hazardous wastes shall be disposed of by Cedar in a Chevron site. A copy of all bills of lading, waste manifests and other documentation prepared for the disposal of any wastes generated in the performance of this Agreement shall be forwarded upon receipt to:

Chevron Chemical Company
940 Hensley Street
Richmond, CA 94804
Attention: Manager Environmental, Health
and Safety

4.3 Chevron shall pay Cedar for all costs of disposal incurred by Cedar, pursuant to Section 4.2 of this Agreement, hereunder, upon Chevron's receipt and approval of a detailed invoice therefor from Cedar. Each month during the term of this Agreement, Chevron shall reimburse Cedar the estimated cost of the waste disposal charges incurred by Cedar for that month based upon the pounds of Product actually Processed during the month. At the end of each production run, this waste disposal account shall be reconciled to determine the actual costs incurred by Cedar. Cedar shall forthwith refund any over-payment of estimated cost reimbursement to Chevron.

4.4 Chevron has provided Cedar with \$50,000 to be used toward the engineering and instrumentation at their West Helena plant location for preparation of the production of CTBL in 1991. Cedar agrees to implement the modifications to its Plant in accordance with the preliminary P&ID attached as Exhibit F at a cost to Chevron not to exceed \$200,000 of which the aforementioned \$50,000 is a part. The Parties shall document, approve and attach hereto the final version of Exhibit F before Cedar starts the first processing campaign. Chevron shall reimburse Cedar its actual costs of modifying the Plant as aforementioned, but not more than \$200,000 plus the actual cost of any scope changes approved by Chevron in the preliminary P&ID, upon notice by Cedar of completion of the modifications. Cedar shall provide documentation, including copies of invoices, to account for the expenditure of these monies.

4.5 The processing fee shall be invoiced to Chevron at the beginning of each month for the prior month. Any delay fees shall be invoiced to Chevron upon the completion of each Processing campaign. Payment shall be due thirty (30) days from receipt of the invoice.

5. Deliveries

5.1 The final Product shall be delivered to Chevron as 60% solution in Methylene Chloride per the specifications for CTBL in Exhibit A. Each shipment of CTBL shall be accompanied by a certificate of analysis stating, at minimum, the CTBL (AI) in Methylene Chloride and the CTBL, CTBL i, CTBA, L-CTBL and Ac-CTBL assay on a solvent free basis determined in accordance with the procedures set forth in Exhibit G.

5.2 At Chevron's direction, Cedar shall schedule shipment of the Product by carriers chosen from a list approved in writing by Chevron, to such locations as Chevron may, at Chevron's sole discretion, designate, FOB the Plant.

5.3 Cedar shall forward to Chevron monthly, inventory records, receipts and shipment and use records of all inventory related to the Processing. These records should include all Raw Materials and Product. These records will be forwarded to:

Chevron Chemical Company
940 Hensley Street
Richmond, CA 94804
Attn: Mr. J. A. Cook

with a copy to:

Valent U.S.A. Corporation
1333 North California Boulevard
P.O. Box 8025
Walnut Creek, CA 94596-8025
Attn: Anita K. Dale

6. Title and Risk of Loss

6.1 Title to and all other incidents of ownership of all Raw Materials and Product shall at all times be in Chevron from the time of receipt by Cedar of the Raw Materials from Chevron or the supplier.

6.2 While any and all Raw Materials and Products are in the possession or custody of Cedar, Cedar agrees to bear the risk of any loss or damage. The Raw Materials shall be deemed to be in the possession or custody of Cedar upon receipt (with respect to the Raw Materials) or Processing (with respect to Product), as the case may be, by Cedar, and shall remain in Cedar's possession or custody until delivered to Chevron or to Chevron's carrier.

6.3 Risk of loss of Product delivered and surplus Raw Materials returned hereunder shall pass to Chevron upon delivery of the Product to the carrier, FOB the Plant. Cedar shall not impose or permit to be imposed upon any of the Product or surplus Raw Materials any liens or encumbrances whatsoever.

6.4 Cedar shall be responsible for all unreasonable loss, contamination, or damage of whatsoever nature to the Product and Raw Materials while in the custody or possession of Cedar. Any loss of activity due to storage of ninety (90) days or more beyond the date of the certificate of analysis shall be the responsibility of Chevron.

7. Health and Safety

7.1 The safe operation of the Plant is a matter of great importance to each party hereto. Chevron may but shall have no obligation to inspect the Plant for potential health or safety problems at any time during the term of this Agreement.

If Chevron should observe any of Cedar's practices or operations outside the scope and limitation of any applicable laws, regulations or statutes which appear to pose a danger or risk to human health or safety or to the environment and so advises Cedar, Cedar shall promptly take such steps as are reasonable and necessary to eliminate such danger or risk.

7.2 The Raw Materials, reaction mixtures during Processing and Product may be or become hazardous. Cedar acknowledges that it understands or will ascertain and understand the potential toxic and hazardous properties concerning the Raw Materials, reaction mixtures during processing, Product, and all by-products and waste products therefrom and will take reasonable steps to so inform and familiarize all of its employees, agents, and contractors who may handle CTBL all uses and applications thereof, containers in which the CTBL or other goods may be shipped or stored and equipment with which they are used and/or handled. Cedar shall also familiarize itself with any Federal, state or local laws and regulations relating to the foregoing sentence. Cedar undertakes to label the Raw Materials, the Product and other goods processed therefrom and all applicable containers and equipment as appropriate to give due warning and protection to its employees and others from such hazards, to inform, protect and train its agents and employees in the safe and proper use, handling and labelling of these materials.

8. Environmental

Cedar will employ such controls and inspections as are necessary to adequately protect the environment surrounding the Plant from exposure to Chevron products. Cedar will notify Chevron immediately of any spills or leaks which allow Chevron products into the atmosphere, sewers, dikes, or beyond the boundaries of the Plant.

Cedar will notify Chevron immediately of any fires where Chevron products are stored and/or Processed. Cedar will store Chevron materials only in warehouses which are approved by Chevron.

9. Specifications and Contamination

Cedar understands and agrees that it is of the utmost importance that the unused Raw Materials and Products are to be delivered to Chevron free of any contaminants or foreign matter. When the unused Raw Materials and Product are delivered to Chevron, it is to be packaged in compliance with all applicable Federal and state laws and regulations and Cedar shall institute procedures to ensure compliance therewith.

10. Term of Agreement

10.1 This Agreement shall become effective and binding upon the parties upon the execution hereof by both parties.

10.2 Unless earlier terminated pursuant to the provisions of subsection 10.3, this Agreement will continue for a term ending July 31, 1994.

10.3 Notwithstanding any other provision of this Agreement, this Agreement may be terminated at any time upon the happening and continuance of any of the following events or conditions:

10.3.1 By the non-defaulting party if the other party is in material breach of any of its obligations hereunder and fails to commence to remedy such breach within five (5) days of receipt of notice thereof from the non-defaulting party.

10.3.2 Upon the mutual agreement of the parties to terminate this Agreement.

10.3.3 By Chevron upon notice if Cedar transfers operating control of the plant by means of sale, lease, assignment or other transfer of substantially all the plant, property and equipment within the Plant to a company that is not a majority owned subsidiary of Cedar or upon the termination of such subsidiary being a majority owned subsidiary of Cedar.

10.3.4 By Chevron in the event that it determines, in its reasonable, good faith, discretion, that pending or threatened claims or litigation involving Chevron's patent position relating to the Product makes further manufacturing of the Product no longer a prudent business activity.

11. Technical Information

11.1 To facilitate Cedar's performance hereunder, it is necessary for Chevron to disclose to Cedar certain of Chevron's proprietary, confidential data and information relating to the Process ("Chevron Information"), including that information previously disclosed to Cedar. Cedar agrees to receive Chevron Information in confidence and shall maintain in confidence all Chevron Information relating to the Process heretofore or hereafter made available to Cedar directly or indirectly by Chevron. Cedar will not use any portion of the Chevron Information for any purpose other than the Processing described herein, and will not disclose all or any portion of the Chevron Information to others without Chevron's prior written consent. The provisions of this Section 11.1 shall not apply to any data or technical information (a) which was developed by Cedar and in Cedar's possession, as evidenced by written records of Cedar, prior to Cedar's first receipt of the same, directly or indirectly, from Chevron; (b) which is now, or hereafter becomes through no act or failure to act on Cedar's part, published information generally known on a nonconfidential basis to the chemical manufacturing industry; (c) which was heretofore or is hereafter furnished to Cedar by others as a matter of right without

restriction on use or disclosure; (d) which Cedar proves was in its possession prior to its first receipt thereof, directly or indirectly from Chevron.

11.2 It is understood that the disclosure to Cedar of Chevron Information shall not be construed as granting a license under any patent rights Chevron or its affiliates may own or control.

11.3 Upon the termination or expiration of this Agreement, Cedar shall return to Chevron all documentation provided by Chevron or generated by Cedar relative to Cedar's performance of this Agreement, except for the current production records which shall be delivered to Chevron within twenty-four (24) months from the date of termination or expiration.

11.4 Cedar will cooperate in educating Chevron representatives concerning the technology and know how of manufacturing the Product. This will include site visits to Cedar's manufacturing facilities. Chevron shall have the same obligations with respect to Cedar's proprietary, confidential data and information ("Cedar Information") that Cedar has with respect to Chevron Information set forth in Section 11.1. Information relating to Product production shall be deemed to be Chevron Information to the extent that it is contained in Cedar reports written to Chevron detailing the work done.

12. Contingencies

12.1 Each party hereto shall be relieved from liability hereunder for failure to deliver or accept delivery of any Raw Materials or any Product for the time and to the extent such failure to perform is caused or occasioned by a Contingency. A party incurring a Contingency shall use all reasonable efforts to remedy the Contingency with dispatch.

In the event that either party becomes unable by a Contingency to carry out its obligations of delivery or acceptance under this Agreement, in whole or in part, such party shall promptly give the other party notice and full particulars, including the expected duration of such Contingency.

12.2 Strikes or Lockouts. It is understood and agreed that the settlement of strikes or lockouts involving either of the parties hereto shall be entirely within the discretion of the party having the difficulty, and that the above requirements that any Contingency shall be remedied with dispatch shall not require the settlement of strikes or lockouts by acceding to the demands of the employees involved, when such course is inadvisable in the discretion of the party having the difficulty.

13. Warranties and Covenants

13.1 Chevron warrants and covenants that:

13.1.1 Chevron shall have unencumbered title to such Raw Materials as of the time the Chevron Raw Materials are delivered by Chevron to Cedar, and such Raw Materials shall meet the specifications identified in Exhibit C hereto.

13.1.2 Chevron has disclosed to Cedar all hazards known to it associated with the manufacturing, handling and use of Raw Materials and Product and all reaction mixtures, by-products and waste products produced in connection with the production of Product hereunder.

13.2 Cedar warrants and represents that:

13.2.1 The operation of the Plant, including any applicable licensing for such operations, and the processing, packaging and shipping of the Products shall be in compliance with

all applicable governmental laws, ordinances, rules, regulations, executive orders, government guidelines and other public statements of policy;

13.2.2 Subject to the provisions of Section 3.4, the Product when delivered to Chevron will conform to the Product Specifications as set forth in Exhibit A.

13.2.3 Cedar has read and understands the Exhibits attached hereto and fully understands the nature of all Raw Materials, products and other substances involved in the Processing of the Product.

13.2.4 Cedar will take all steps necessary to protect its employees, the public and the environment from any risk of loss, damage, injury, death or other liability for claims therefore associated with any and all of the foregoing.

14. Indemnity

14.1 Cedar shall indemnify and hold harmless Chevron, Chevron's affiliates and the agents and employees of Chevron and Chevron's affiliates ("indemnitees"), from and against any and all loss, damage, injury, expenses (including reasonable attorneys' fees) and liability for injury to or death of a person, including an employee of Cedar or an indemnitee, or for loss of or damage to property, including property of Cedar, resulting directly or indirectly from Cedar's performance or lack of performance under this Agreement, except to the extent such loss, damage, injury or liability is the result of Chevron's negligence, breach of its representations or warranties hereunder, or willful misconduct.

14.2 Chevron shall indemnify and hold harmless Cedar, Cedar's affiliates and the agents and employees of Cedar and Cedar's affiliates ("indemnitees"), from and against any and all loss,

damage, injury, expenses (including reasonable attorneys' fees) and liability for injury to or death of a person, including an employee of Chevron or an indemnitee, or for loss of or damage to property, including property of Chevron, resulting directly or indirectly from Chevron's performance or lack of performance under this Agreement, arising out of the handling, transportation, storage or use of Raw Materials or Product after delivery to Chevron hereunder except to the extent such loss, damage, injury or liability is the result of Cedar's negligence, breach of its representations or warranties hereunder, or willful misconduct.

14.3 Chevron shall indemnify, defend and hold harmless, Cedar, Cedar's affiliates and the agents and employees of Cedar and Cedar's affiliates ("indemnities"), from and against any and all loss and expenses including reasonable attorney's fees arising out of any patent infringement claim asserted against Cedar based on Cedar's performance hereunder.

15. Insurance

15.1 CONTRACTOR shall, at its own expense, carry and maintain the following insurance with companies and on terms satisfactory to CHEVRON:

15.1.1 Worker's Compensation and Employer's Liability Insurance as prescribed by applicable law;

15.1.2 Comprehensive General Liability (Bodily Injury and Property Damage) Insurance;

15.1.3 Automobile Bodily Injury and Property Damage Liability Insurance, extending to owned, non-owned and hired automobiles, trucks, buses, vans and other motorized vehicles used in the performance of this Agreement, in the amounts of \$250,000

per person and \$500,000 per occurrence for bodily injury and \$100,000 per occurrence for property damage.

15.2 Unless specified otherwise above, the limits of liability of such insurance shall be not less than five hundred thousand dollars (\$500,000) per person and not less than one million dollars (\$1,000,000) per occurrence.

15.3 This insurance shall be expressly endorsed to name CHEVRON as an additional insured and shall include a requirement that the insurer provide CHEVRON with not less than thirty (30) days advance written notice prior to the effective date of any cancellation or material change.

15.4 The requirements of this Section 15 are in addition to CONTRACTOR obligations set forth in Section 15.1, and does not limit them, satisfy them or derogate from them.

15.5 Prior to the start of any processing or packaging under this Agreement, and in any case not more than thirty (30) days after the execution of this Agreement, CONTRACTOR shall deliver to CHEVRON evidence of such insurance and endorsement.

16. Taxes

16.1 Chevron shall assume responsibility and pay for all tangible personal property taxes assessed by any governmental authority with respect to the Raw Materials and Product while in Cedar's custody and possession.

16.2 The Processing Fees for the Product include all Federal, state and local taxes, duties and other governmental charges and fees that may hereafter be imposed on any aspect of the Processing

of the Product, or the performance of other work hereunder, all of which taxes, duties, charges and fees shall be paid by Cedar.

17. Right of Review

17.1 Cedar shall maintain true and current records in connection with its performance hereunder and all transactions related thereto and shall retain all such records for at least twenty-four (24) months after the termination date of this Agreement.

17.2 Chevron shall have the right at its expense to have an authorized representative of Chevron interview the salaried or supervisory personnel of Cedar and to review during regular business hours the appropriate books and records of Cedar for the purpose of verifying the compliance by Cedar with the provisions of this Agreement.

17.3 Cedar shall assist Chevron in making the above reviews.

18. Conflicts of Interest

No director, employee or agent of Cedar shall give or receive any commission, fee, rebate, gift or entertainment of significant cost or value in connection with this Agreement, or enter into any business arrangement with any director, employee or agent of Chevron or any affiliate other than as a representative of Chevron, without prior written notification thereof to Chevron. Cedar shall promptly notify Chevron of any violation of this Section and any consideration so received shall be paid over or credited to Chevron. Additionally, if any violation of this Section occurring prior to the date of this Agreement resulted directly or indirectly in Chevron's consent to enter into this Agreement with Cedar, Chevron may, at the it's sole option, terminate this Agreement at any time and, notwithstanding any other provision of this Agreement

pay no compensation or reimbursement to Cedar whatsoever for any work done after the date of termination.

19. Notices

19.1 Notices under this Agreement shall be given in writing and delivered:

If to Chevron to: Chevron Chemical Company
940 Hensley Street
Richmond, CA 94804
Attn: Mr. J. A. Cook
Fax: 415 231-8455

with a copy to: Chevron Chemical Company
Attn: Vice President and
General Counsel
6001 Bollinger Canyon Road
San Ramon, CA 94583
Fax: 415-842-5775

and a copy to: Valent U.S.A. Corporation
Attn: Anita K. Dale
1333 North California Boulevard
P.O. Box 8025
Walnut Creek, CA 94596-8025
Fax: 415 256-2776

If to Cedar to: Cedar Chemical Corporation
Attn: Geoffrey L. Pratt
5100 Poplar Ave., 24th Floor
Memphis, TN 38137
Telex No.: 53927
Fax: 901 684-5398

or to such other address as may be designated by such party.

19.2 Notices shall be deemed to have been given:

(a) On the same business day if the notice has been delivered by hand or sent by telecopier or by telex with the correct answer back; or

(b) On the next succeeding business day following receipt of a notice sent by registered or certified U.S. mail, return receipt requested, as evidenced by the return receipt card properly endorsed by the receiving party.

20. Assignment

20.1 Except as provided below, none of the rights or obligations of either party hereunder may be assigned without the other party's prior written consent, which consent shall not be unreasonably withheld; provided, however, either party may assign this Agreement to any company controlling, controlled by or under common control with the assignor. Any other assignment without such written consent shall be void.

20.2 Chevron may at any time during the term of this Agreement assign all of its contract rights, and delegate all of its contract duties, to Valent U.S.A. Corporation ("Valent") (and its parent company), in which event, Cedar will look solely to

24 Revision September 18, 1991

CVX000072

Valent and its parent company for the satisfactory performance of this Agreement.

21. Governing Law

The parties hereto agree that all of the provisions of this Agreement and any questions concerning its interpretation and enforcement shall be governed by the internal laws of the State of Arkansas, without applying any rules regarding choice of laws, and the execution and delivery of this Agreement shall be deemed to be the transaction of business within the State of Arkansas for purposes of conferring jurisdiction upon courts located within the State.

22. Waivers

No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar), nor shall such waiver constitute a continuing waiver unless otherwise expressly provided. Any obligations to be performed by either party before, upon or subsequent to the termination of this Agreement shall survive termination of this Agreement if not already made or performed at date of termination.

23. No Third Party Beneficiaries

Nothing in this agreement shall entitle any person other than Chevron or Cedar or their respective successors and assigns permitted hereby to any claim, cause of action, remedy or right of any kind.

24. Independent Contractor

Nothing in this Agreement shall be construed to constitute Chevron or Cedar as a partner, joint venturer, agent or other representative of the other. Each is an independent company retaining complete control over and complete responsibility for its own operations and employees. Nothing in this Agreement shall be construed to grant either party any right or authority to assume or create any obligation on behalf or in the name of the other; to accept summons or legal process for the other; or to bind the other in any manner whatsoever.

25. Employment Practices

To the extent applicable to this Agreement, Cedar shall comply with the following clauses contained in the Code of Federal Regulations and incorporated herein by reference: 48 C.F.R. § 52.203-6 (Subcontractor Sales to Government); 48 C.F.R. § 52.219-8, 52.219-9 (Utilization of Small and Small Disadvantaged Business Concerns); 48 C.F.R. § 52.219-13 (Utilization of Women-Owned Business Concerns); 48 C.F.R. § 52.222-26 (Equal Opportunity); 48 C.F.R. § 52.222-35 (Disabled and Vietnam Era Veterans); 48 C.F.R. § 52.222-36 (Handicapped Workers); 48 C.F.R. § 52.223-2 (Clean Air and Water); and 48 C.F.R. § 52.223-3 (Hazardous Material Identification and Material Safety Data). Unless previously provided, if the value of this Agreement exceeds \$10,000, Cedar shall provide a Certificate of Nonsegregated Facilities to Chevron. Cedar agrees and covenants that none of its employees, or employees of its subcontractors, who provide services to Chevron pursuant to this Agreement are unauthorized aliens as defined in the Immigration Reform and Control Act of 1986.

26. Entirety of Agreement

26.1 This Agreement constitutes the entire agreement between the parties hereto pertaining to the subject matter hereof and supersedes all prior agreements, understandings, negotiations and discussions of the parties, whether oral or written, and there are no warranties, representations or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver or termination of this Agreement shall be implied from any conduct of the parties or trade custom or usage, but to be binding must be executed in writing by the party to be bound thereby.

26.2 The parties recognize that from time to time instructions, invoices and similar documentation will be transmitted by each party to the other to facilitate the implementation of this Agreement. Any terms and conditions contained in any of those documents which are inconsistent with the terms of this Agreement shall be null, void and not enforceable.

27. Arbitration

In the event that the parties are unable within a period of three (3) months to resolve any dispute between them concerning the scope or interpretation of this Agreement, either party may submit the matter to arbitration for resolution. Arbitration shall be held in Denver, Colorado before three arbitrators. The rules of commercial arbitration of the American Arbitration Association in effect on the date the matter is submitted to arbitration shall apply. The decision of the arbitrators shall be in writing and shall contain the findings of fact and conclusions of law on which their decision is based. Unless clearly erroneous, such decision shall be final and binding on the parties and may be enforced in any court of competent jurisdiction.

The parties hereto have executed this Agreement to be effective as of the date first hereinabove written.

CEDAR CHEMICAL CORPORATION.

CHEVRON CHEMICAL COMPANY

By: 

By: Norman R. Angell

Title: _____

Title: Ag. Chem. Div. Manager

Date: _____

Date: October 7, 1991

CERTIFICATE OF NONSEGREGATED FACILITIES

Cedar certifies that he does not and will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not and will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. Cedar understands that the phrase "segregated facilities" includes facilities which are in fact segregated on a basis of race, color, creed, or national origin, because of habit, local custom, or otherwise. Cedar understands and agrees that maintaining or providing segregated facilities for his employees or permitting his employees to perform their services at any locations, under his control, where segregated facilities are maintained is a violation of the Equal Opportunity Clauses required by Executive Order No. 11246 of September 24, 1965, and the regulations of the Secretary of Labor set out in 33 C.F.R. 7804 (May 28, 1968). Cedar further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clauses; that it will retain such certifications in its files, and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR
CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certificate of Nonsegregated Facilities as required by the May 9, 1967, order on Elimination of Segregated Facilities, by the Secretary of Labor (32 F.R. 7439, May 19, 1967), and as required by the regulations of the Secretary of Labor set out in 33 F.R. 7804 (May 28, 1968) and as they may be amended, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clauses. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semi-annually or annually).

CEDAR CHEMICAL CORPORATION

By:  22

Its:

Return to:
Chevron Chemical Company
6001 Bollinger Canyon Road
San Ramon, California 94583
Attn: Vice President/General Counsel

AGREEMENT

AGREEMENT, made as of September 1, 1975 by and between Mobil Chemical Company, a Division of Mobil Oil Corporation, a New York corporation, hereinafter called Mobil, and VERTAC Incorporated, a Texas corporation, hereinafter called Contractor.

W I T N E S S E T H:

WHEREAS, Mobil has developed and currently possesses a process for the manufacture of 2-nitro, 5-chloro methylbenzoate, hereinafter called NBE, and is desirous of having NBE manufactured for it according to such process; and

WHEREAS, Contractor possesses personnel and equipment necessary for the manufacture of NBE and is desirous of manufacturing NBE for Mobil in accordance with said process developed by Mobil.

NOW, THEREFORE, it is agreed as follows:

1. Mobil shall furnish Contractor with or cause it to be furnished with methyl meta chlorobenzoate, anhydrous ammonia, ethylene dichloride, nitric acid, and sulfuric acid meeting the specifications set forth in Appendix A attached hereto. Said raw materials hereinafter shall be called the "Materials". Contractor will inspect all Materials tendered by Mobil and promptly shall advise Mobil of any defects in such Materials or failure of the Materials to conform with said specifications. A railroad shipping weight ticket

9339374



and Mobil's certificate of analysis shall be provided by Mobil for every shipment of CBE.

2. In accordance with the terms of this agreement, Contractor shall manufacture such amounts of NBE as Mobil from time to time may request to be manufactured from Materials delivered to Contractor. In Manufacturing NBE, Contractor shall:

- a. Use Materials which Mobil supplies or causes to be supplied.
- b. Use the process and procedures specified by Mobil and follow such instructions concerning manufacturing of NBE as Mobil may give from time to time.
- c. Ship NBE as directed by Mobil in rail tank cars supplied by Mobil. Contractor shall refrain from using rail cars supplied by Mobil for any purpose other than the storage and shipping of NBE manufactured hereunder.
- d. Contractor shall invoice Mobil for each shipment made. Payment by Mobil shall be on the basis of net thirty (30) days after receipt of invoice.

3. Contractor shall draw two 2-oz. samples from each batch of NBE manufactured hereunder. Each of said samples shall be marked with Contractor's name and the batch number. Contractor shall seal one sample and hold same for one (1) year at which time it may be disposed of unless otherwise advised by Mobil.

Contractor shall ship one of the samples to Mobil at the following address:

Mobil Chemical Company
Arrow Mines Road
Mt. Pleasant, Tennessee 38474

All samples will be placed in bottles supplied by Mobil and will be drawn in accordance with procedures specified by Mobil.

4. Contractor shall supply Mobil with production reports on forms provided by Mobil and such reports shall be sent to Mobil at time intervals established by Mobil.

5. Contractor shall receive, handle and store raw materials and shall store, handle and ship NBE as provided in this Section 5.

Contractor shall:

- a. Provide and maintain at West Helena, Arkansas sufficient facilities for the safe storage of Materials and NBE required by Mobil to be stored pursuant hereto. Mobil shall provide tank cars for storing CBE and NBE.
- b. Preserve and protect Materials and NBE from contamination, loss, theft, damage or destruction.
- c. Segregate Materials and NBE from other materials and goods and take such steps, including the filing of documents and the posting of signs, as Mobil may request to protect Mobil's title to Materials and NBE.
- d. In accordance with Mobil's production sched-

ules, deliver NBE manufactured hereunder to Mobil. In connection with each such shipment, Contractor shall prepare a bill of lading in a form approved by Mobil and immediately after a shipment is made Contractor will send a copy of such bill of lading to Mobil.

6. Title to all Materials delivered to Contractor, all work in process incorporating Materials and all NBE shall remain in Mobil.

7. Contractor shall fully account for all Materials, work in process and NBE and shall keep such records relating thereto as Mobil reasonably may request. Contractor shall be responsible for and shall reimburse Mobil for all Materials, work in process and NBE contaminated, lost, stolen, destroyed, damaged or unaccounted for after delivery of Materials to Contractor and before delivery to Mobil of such Materials or NBE. Contractor's obligation in the event of contamination, loss, theft, destruction or damage or inability to account for Materials or NBE shall be as follows: With respect to NBE Contractor shall pay Mobil its then current purchase price plus transportation costs for such NBE and with respect to Materials and work in process Contractor shall reimburse Mobil for Mobil's cost in obtaining same and transporting same to Contractor's facilities. Mobil shall have the right to make or have its auditors make a stock audit (either physical or book inventory or both) from time to time and at such times as it may

elect and Mobil shall have access to Contractor's books and records for this purpose. Mobil shall give reasonable notice of such election and its carrying out of the audit will not interfere with the continued operation of the business of Contractor. Losses reported by Contractor or computed on the basis of Mobil audits shall be the difference between (1) the original inventory or the inventory as of the preceding audit plus deliveries to Contractor less deliveries by Contractor on Mobil's order, and (2) the inventory as of the date of the current audit. Any payments for shortages shall be within 30 days of Mobil's notification to Contractor. None of the above shall include normal processing (yield) losses.

8. Mobil and Contractor will mutually agree to acceptable Material yield rates after the first ninety (90) days of operation in Contractor's NBE manufacturing facilities. If Mobil and the Contractor cannot mutually agree on proper yields, Mobil has the right to assume direct supervision of the Contractor's manufacture of NBE hereunder and Contractor shall accept and perform in accordance with such supervision. In the event that Mobil and Contractor are unable to agree on an acceptable yield, Mobil may terminate this agreement on written notice to Contractor.

9. Contractor shall keep Mobil fully and currently informed with respect to NBE production and on reasonable advance notice shall permit Mobil's personnel to observe the NBE production operation. Mobil shall hold Contractor harmless from and indemnify it against all claims and liability on account of personal injury suffered by such Mobil personnel while in Contractor's facility ex-

cept to the extent that such injury results from the negligent or willful acts of Contractor's employees or agents.

10. Information directly related to carrying out of Mobil's manufacturing process, including, but not limited to, reaction conditions, process sequences, materials, and equipment arrangements shall be made available to Mobil's personnel, and Mobil shall have the right to inspect, review, and use such information. This shall not prevent Contractor from filing patent applications on possible patentable developments by Contractor, provided that Contractor shall grant Mobil and its affiliates a non-exclusive, royalty-free, world-wide license to use such inventions in their manufacturing operations.

11. Contractor will tender to Mobil or its designee and at reasonable times Mobil will accept or cause its designee to accept all waste effluents generated in the manufacture of NBE. Contractor shall maintain suitable storage isolated from other constituents to separately hold such effluents (aqueous and weak acid) until such time as they can be reasonably hauled away at Mobil's expense.

12. To the extent that Mobil makes available Materials in accordance with the terms of this agreement, Contractor shall manufacture NBE and shall deliver NBE to Mobil as follows:

November 15, 1975 to February 28, 1976.....250,000-300,000
lbs/mo.

March 1, 1976 to March 31, 1978.....400,000-500,000
lbs/mo.

13. Mobil shall pay Contractor according to the schedule outlined in Appendix B as full compensation for the services rendered, the expense incurred, the facilities provided and the obligations assumed by Contractor hereunder.

14. Mobil shall be responsible for and will pay, upon notification by Contractor, all personal property taxes levied on Mobil's property while in the custody of Contractor. Contractor shall pay all other taxes and fees in respect to or measured by the manufacture of NBE or the storage or delivery of Mobil's property. Contractor will provide Mobil with receipts for taxes paid by it hereunder for Mobil's account.

15. If a batch of NBE manufactured hereunder does not conform with the specifications set forth in Appendix C, Contractor immediately by telephone shall notify the Mobil employee designated by Mobil and follow Mobil's instructions as to how to proceed. If such failure to conform with specifications does not result from defects in Mobil's process or in Materials, Contractor at its expense and without charge to Mobil will produce from Materials supplied by Mobil a replacement batch that does conform with said specifications.

16. All Materials and NBE remaining in Contractor's possession on the date of termination of this contract shall be shipped to Mobil or its designee at Mobil's expense.

17. Contractor acknowledges that it has been made aware of the nature of the Materials and Contractor represents and warrants that

it is knowledgeable and experienced in working with such Materials. In performing its services hereunder Contractor shall comply with all relevant laws, regulations and governmental orders. Contractor agrees to hold Mobil harmless from and to indemnify Mobil against all loss, cost, damages, liability and expense (including reasonable attorney's fees) on account of all personal injury or property damage that results from or is related to Contractor's handling or storage of Materials or Contractor's manufacture, handling or storage of NBE. Mobil warrants and represents that NBE is not a regulated product as defined in the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA, 7 USC sec 135, as amended by the Federal Environmental Pesticide Control Act, FEPCA, 7 USC sec 136 et seq).

18. No liability shall result from non-performance hereunder caused by circumstances beyond the control of the affected party. Any party whose performance is prevented or impeded by such circumstances promptly shall notify the other party.

19. All notices required herein shall be deemed to be properly served if sent by first class mail with postage fully prepaid thereon, or by telegram, with telegraph charges prepaid, and addressed to the party for whom intended at the following addresses:

Mobil:

Phosphorus Division
Crop Chemicals Group
Mobil Chemical Company
Division of Mobil Oil
Corporation
P.O. Box 26683
Richmond, Virginia 23261

Contractor:

Eagle River Chemical Corp.
P.O. Box 2648
West Helena, Arkansas 72390

non 8/12

20. Mobil may terminate this agreement in accordance with Section 21 and Appendix B and in addition either party can terminate this agreement on sixty (60) days written notice after the production and receipt by Mobil of the first 5,000,000 lbs. of NBE.

21. Anything elsewhere in this agreement to the contrary notwithstanding, if Contractor breaches any of its obligations hereunder, becomes insolvent or commits an act of bankruptcy or takes advantage of any law for the benefit of debtors or Contractor's creditors or if a receiver is appointed for Contractor or any of Contractor's property or if Contractor in any respect is in default hereunder, then in any of such events, Mobil forthwith may terminate this contract by written notice to Contractor. Any such termination shall be without prejudice to any other rights or remedies available to Mobil. On any such termination Contractor shall deliver to Mobil all property of Mobil. The provisions of Sections 6, 7, 10 and 16 of this contract and paragraph 3(a) of Appendix B shall survive any termination of this contract.

22. Neither Contractor nor any employees of Contractor are employees of Mobil, it being understood that Contractor is an independent contractor and is solely responsible for the employment, control and conduct of Contractor's employees and for injury of such employees or to others through such employees.

23. The parties further agree as follows:

a. This contract shall be governed by the laws of the State of New York.

b. This contract constitutes the entire agreement between the parties with regard to the matters contained herein and there are no understandings or agreements, express or implied, not expressly set forth herein. No modification of this contract or waiver of any of its provisions shall be effective unless it is in writing and signed by the party to be bound thereby. Neither party's waiver of any breach of any of the provisions of this agreement shall be deemed to be a waiver of any subsequent breach of the same nature or any breach of a different nature.

c. This contract shall bind the successors and assigns of the parties hereto but neither party may assign its interest in this agreement without the prior written consent of the other party, providing, however, Mobil may assign its interest in this agreement to another subsidiary of Mobil Oil Corporation or to a successor in interest to Mobil's crop chemicals business.

24. ⁴¹ The secrecy agreement between Mobil and the Contractor dated February 28, 1975, is hereby incorporated herein and made a part hereof.

25. The term of this contract shall commence on the date first above written and shall terminate on March 31, 1978 unless earlier terminated pursuant to Sections 20 or 21 hereof.

26. Any controversy or claim relating to this agreement shall be resolved by arbitration in New York, New York in accordance with the rules of the American Arbitration Association and judgment upon the award of the arbitrator may be entered in any court having jurisdiction.

IN WITNESS WHEREOF, Mobil and Contractor have hereunder executed this contract.

MOBIL CHEMICAL COMPANY

By [Signature]

Title [Signature]

Date 10/10/75

VERTAC INCORPORATED

By [Signature]

Title [Signature]

Date 9/8/75

APPENDIX A
To Agreement
Between Mobil Chemical Company
And
VERTAC, Incorporated.
Made as of

SPECIFICATIONS - RAW MATERIALS

Methyl meta chlorobenzoate (CBE)

Assay	93 - 95% min.
Methanol	0.1% max.
Dichlorobenzoate	0.5% max.
Color APHA	200 max.

Anhydrous Ammonia (NH₃)

Assay	99.8% min.
-------	------------

Nitric Acid (HNO₃)

Assay	97.5% min..
Sulfate (as H ₂ SO ₄)	0.07% max.
Chloride (as HCl)	5 PPM max.
Nitrobodyes	none
Iron (as Fe)	15 PPM max.

Sulphuric Acid (H₂SO₄)

Assay	Virgin 98% min.
-------	-----------------

Ethylene Dichloride (EDC)

Assay	Technical grade 99% purity less than 1% water
-------	--

Handwritten signature

APPENDIX B
to Agreement
Between Mobil Chemical Company
And
VERTAC Incorporated

Made as of

2,500,000 @ .08 = 200,000

1. Contractor's only compensation hereunder shall be as follows:
 - (a) For the first 2,000,000 lbs. of NBE delivered hereunder: \$0.19 per pound. For all additional NBE delivered hereunder: \$0.16 per pound.
 - (b) Contractor shall invoice Mobil for each shipment of NBE made on an individual shipment basis. Prices are F.O.B., West Helena, Arkansas.
2. To offset revamping charges by Contractor to adapt its plant to the manufacture of NBE:
 - (a) Mobil, subject to the provisions of Sections 8 and 21 in the contract and Section 3 below, will prepay on the following basis:
 - i) \$100,000 at time of contract signing. ✓
 - ii) \$100,000 at time of production of the first batch of NBE meeting the specifications set forth in Appendix C.
 - iii) The total prepayment (\$200,000) will be credited to Mobil at a rate of 8¢/lb. for each pound of NBE delivered hereunder until the full amount is credited, or as otherwise provided in Section 3 below.

Wm. J. K.

(b) Subject to the provisions of Section 8 and Section 21 in the contract and Section 3 below, the first 5,000,000 pounds of NBE will be on a firm take or pay basis, provided, however, that if in Mobil's reasonable business judgment the continued performance of this contract becomes economically undesirable for it or if Mobil and Contractor are unable to agree on yield pursuant to Section 8, Mobil may terminate said take or pay obligation by payment to the Contractor of the difference between \$250,000.00 and \$0.05 per pound multiplied by the number of pounds of NBE theretofore delivered to Mobil.

3. The foregoing to the contrary notwithstanding:

(a) In the event that Contractor does not meet two of the three delivery criteria listed below and if such failure to deliver is not a result of defects in Mobil's process or Mobil's failure to supply sufficient Materials conforming with the specifications set forth in Appendix A, Mobil may terminate this agreement on written notice to Contractor:

- i) Contractor to ship 75,000 lbs. of specification NBE by December 4, 1975.
- ii) Mobil to receive an aggregate of 250,000 lbs. of specification NBE by January 4, 1976.
- iii) Mobil to receive an aggregate of 500,000 lbs. of specification NBE by January 31, 1976.

In the event of such a termination or a termination

[Handwritten signature]

pursuant to Section 8 or Section 21 of the contract or Section 2(b) above, Contractor promptly shall refund to Mobil the prepayment described in Section 2(a) above less the amount theretofore credited to Mobil pursuant to Section 2(a) (iii).

- (b) In the event that Contractor has not delivered to Mobil by January 1, 1977 at least 5,000,000 pounds of NBE conforming to the specifications set forth in Appendix C and if such failure to deliver is not a result of defects in Mobil's process or Mobil's failure to supply sufficient Materials conforming with the specifications set forth in Appendix A, Mobil shall thereafter be relieved of the take or pay obligation set forth in Section 2(b) above. Contractor on 30 days written notice to Mobil may terminate this agreement if Mobil has not taken delivery of 5,000,000 lbs. by March 1, 1977.

BOOK 486 PAGE 670

HELENA-WEST HELENA INDUSTRIAL DEVELOPMENT CORPORATION
TO
HELENA CHEMICAL COMPANY

(WARRANTY DEED)

KNOW ALL MEN BY THESE PRESENTS:

THAT Helena-West Helena Industrial Development Corporation, a corporation organized and existing under the laws of the State of Arkansas, for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable considerations to it cash in hand paid by Helena Chemical Company, a corporation organized and existing under the laws of the State of Arkansas, receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey unto the said Helena Chemical Company, and unto its successors and assigns forever, the following described lands and property located and being situate in the County of Phillips, State of Arkansas, to-wit:

Property located in Private Survey No. 2412, Township Two (2) South, Range Four (4) East, Phillips County, Arkansas, and described as follows: Commencing at the Southeast corner of Section Fourteen (14), Township Two (2) South, Range Four (4) East; thence West 3517.8 feet; thence North 1980.0 feet; thence North 35° 34' West 1122.6 feet to the East right-of-way of State Highway No. 242; thence North 54° 12' East 1325.7 feet along said East right-of-way; thence South 61° 18' East 650.0 feet along the North line of a proposed street to the point of beginning; thence from the point of beginning South 61° 18' East 700 feet along the North line of a proposed street; thence North 28° 42' East 796.3 feet; thence North 53° 29' West 706.0 feet; thence South 28° 42' West 890.2 feet to the point of beginning, containing 13.56 acres, more or less.

TO HAVE AND TO HOLD the same unto the said Helena Chemical Company, and unto its successors and assigns forever, together with all and singular the tenements, appurtenances and hereditaments thereunto belonging or in any wise appertaining.

And Helena-West Helena Industrial Development Corporation hereby covenants with the said Helena Chemical Company that it will forever warrant and defend the title to said lands and property against all lawful claims whatsoever.

IN WITNESS WHEREOF Helena-West Helena Industrial Development Corporation, being duly authorized by proper resolution of its Board of Directors, has caused this instrument to be executed by David Solomon, its President, and attested by John C. Bumpers, its Secretary, with its corporate seal hereunto affixed on this 12th day of June, 1970.

This instrument was prepared by
David Solomon, Jr., Attorney, Helena, Ark.

157301



HELENA-WEST HELENA INDUSTRIAL DEVELOPMENT CORPORATION

SEAL

BY

DAVID SOLOMON, PRESIDENT

ATTEST:

John C. Bumpers
JOHN C. BUMPERS, SECRETARY

STATE OF ARKANSAS }
COUNTY OF PHILLIPS } ss

ACKNOWLEDGMENT

BE IT REMEMBERED that on this day came before me the undersigned, a Notary Public duly commissioned, qualified and acting within and for the County and State aforesaid, the within named David Solomon and John C. Bumpers, to me well known, who stated that they were the President and Secretary respectively of Helena-West Helena Industrial Development Corporation, a corporation organized under the laws of the State of Arkansas, and were duly authorized in their respective capacities to execute the foregoing instrument for and in the name and behalf of said Corporation, and they further state and acknowledge that they have so signed, executed and delivered said foregoing instrument for the considerations, uses and purposes therein mentioned and set forth.

IN TESTIMONY WHEREOF I have hereunto set my hand and seal as such Notary Public on this 12th day of June, 1970.

SEAL

My Commission Expires: 2/15/72

12-15-1972

Leona B. Caven
Notary Public
Leona B. Caven

SEAL

State of Arkansas, County of Phillips
Subscribed and sworn to before me on the 12th day of June, 1970 at 3
P. M. by David Solomon and John C. Bumpers
James A. King, Circuit Clerk of said County.
486 Page 671

494 MC

HELENA-WEST HELENA INDUSTRIAL DEVELOPMENT CORPORATION
HELENA CHEMICAL COMPANY

DEED OF CONVEYANCE

KNOW ALL MEN BY THESE PRESENTS:

That Helena-West Helena Industrial Development Corporation, a corporation organized and existing under the laws of the State of Arkansas, for and in consideration of the sum of two hundred thirty-six dollars (\$236.00) and other good and valuable considerations to it then in hand paid by Helena Chemical Company, a corporation organized and existing under the laws of the State of Arkansas, receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey unto the said Helena Chemical Company, and unto its successors and assigns forever, the following described lands and property located and being situate in the County of Phillips, State of Arkansas, to-wit:

Property located in Private Survey No. 2112, Township Two (2) South, Range Four (4) East, Phillips County, Arkansas, and described as follows: Commencing at the Southeast corner of Section Fourteen (14), Township Two (2) South, Range Four (4) East, thence West 351.8 feet; thence North 1980.0 feet; thence North 33° 31' West 1122.6 feet to the East right-of-way of State Highway No. 242; thence North 94° 18' East 1321.7 feet along said East right-of-way; thence South 61° 18' East 550.0 feet along the North line of a proposed street; thence North 28° 42' East 890.2 feet to the point of beginning; thence North 28° 42' East 30.3 feet to the South right-of-way of the Missouri Pacific Railroad; thence South 33° 29' East 705.0 feet along the South right-of-way of the Missouri Pacific Railroad; thence South 28° 42' West 30.3 feet; thence North 33° 29' West 705.0 feet to the point of beginning, containing 0.49 acres, more or less.

TO HAVE AND TO HOLD the same unto the said Helena Chemical Company, and unto its successors and assigns forever, together with all and singular the tenements, appurtenances and hereditaments thereto belonging or in any wise appertaining.

And Helena-West Helena Industrial Development Corporation hereby covenants with the said Helena Chemical Company that it will forever warrant and defend the title to said lands and property against all lawful claims whatsoever.

IN WITNESS WHEREOF Helena-West Helena Industrial Development Corporation, being duly authorized by proper resolution of its Board of Directors, has caused this instrument to be executed by David Solomon, its President, and attested by John C. Bumpers, its Secretary, with its corporate seal hereunto affixed on this 1st day of September, 1970.

This instrument was executed by
David Solomon, Jr. President, Helena, Ark.

157283



HELENA WEST HELENA INDUSTRIAL DEVELOPMENT CORPORATION

BY David Solomon
DAVID SOLOMON, PRESIDENT

ATTEST:

John C. Bumpers
JOHN C. BUMPERS, SECRETARY

STATE OF ARKANSAS

COUNTY OF PHILLIPS

ACKNOWLEDGMENT

BE IT REMEMBERED that on this day came before me the undersigned, a Notary Public duly commissioned, qualified and acting within and for the County and State aforesaid, the within named David Solomon and John C. Bumpers, to me well known, who stated that they were the President and Secretary respectively of Helena West Helena Industrial Development Corporation, a corporation organized under the laws of the State of Arkansas, and were duly authorized in their respective capacities to execute the foregoing instrument for and in the name and behalf of said Corporation, and they further state and acknowledge that they have so signed, executed and delivered said foregoing instrument for the considerations, uses and purposes therein mentioned and set forth.

IN TESTIMONY WHEREOF I have hereto set my hand and seal as such Notary Public on this 1st day of September, 1970.

My Commission Expires: 6/30/73

6/30/73

Neala Wilson
Notary Public
Neala Wilson

State of Arkansas, County of Phillips

Filed for record the 17th day of May, 1971 at 9:25
o'clock A. M. and recorded in Book 474 Page 17
James A. King Circuit Clerk By W. G. Albritton

SEAL

SEAL

From: Nixon, Lance
Sent: Wednesday, January 08, 2014 9:07 AM
To: Brewer, Linda
Subject: CedarChem (06NH) Chevron
Attachments: Chevron.pdf; Syngenta.pdf

Lance M. Nixon
Enforcement Officer
U.S. EPA Region 6
Superfund Division (6SF-TE)
214-665-2203
nixon.lance@epa.gov



5100 Poplar Avenue • Suite 2414 • Memphis, TN 38137 • (901) 685-5348 • Fax (901) 684-5398

August 19, 1995

*x.c. (Cover letter)
BG
TL
MSP
x.c. (Entire Package)
WVR
EST*

*DH
8/21/95*

Ms. Elizabeth K. Schuster
Director of Legal Services
Zeneca Ag Products
1800 Concord Pike
Wilmington, DE 19897

Dear Beth:

It has been a long road but we finally made it. Enclosed is an original of the Acifluorfen contract which has been signed on behalf of Cedar and has been approved by Cedar's Board. This should complete the processing of this agreement subject, of course, to Zeneca's Board approval which is anticipated on or before September 30, 1995. We are looking forward to continuing work with the Zeneca team on this project, and appreciate your confidence in Cedar.

Sincerely,

Geoffrey L. Pratt
Vice President, Custom Manufacturing

GLP:lc

Enclosure:

cc: John Bumpers
Randal Tomblin
David Hoppel
John Whitsitt
Allen Malone

*2, 7 - specs + section 3.1
2 8 7 batches not mtg
specs.
3.1*

ZENECA

COPY

ZENECA Ag Products

1800 Concord Pike
Wilmington
Delaware 19897

Telephone (302) 886-1000
Telex 62032112
Fax (302) 886-1553

VIA FEDERAL EXPRESS

August 17, 1995

Mr. Geoffrey L. Pratt
Vice President, Custom Manufacturing
Cedar Chemical Corp.
5100 Poplar Avenue
Suite 2414
Memphis, TN 38137

RECEIVED

AUG 18 1995

Ans'd.....

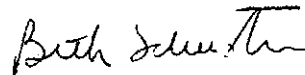
logged in le

Dear Mr. Pratt:

I am pleased to enclose two copies of the contract which are ready for your signature. Please sign both, retain one copy for your files and return the other copy to me by overnight mail.

Thank you very much.

Very truly yours,



Elizabeth K. Schuster
Director of Legal Services

EKS:leh
Enclosures
08179501.doc

cc: F. Bundock
S. Clarke
A. Cross
P. Dewey
L. Lapple
D. Pisk
K. Williams

AGREEMENT

This Agreement made and entered into as of the 17th day of August, 1995, by and between Cedar Chemical Corporation, a Delaware corporation, with offices at Suite 2414, Clark Tower, 5100 Poplar Avenue, Memphis, Tennessee 38137 ("Cedar") and Zeneca Inc., a Delaware corporation with offices at 1800 Concord Pike, P. O. Box 15458, Wilmington, Delaware 19850-5458 ("Zeneca").

WITNESSETH:

WHEREAS, Cedar owns and operates a chemical manufacturing complex in West Helena, Arkansas (the "Cedar Plant") and is experienced in the toll manufacture of pesticides and pesticide intermediates; and

WHEREAS, Zeneca desires to have Cedar manufacture for Zeneca at the Cedar Plant quantities of a manufacturing intermediate known as acifluorfen technical (as defined and specified in the specifications attached hereto as Exhibit A and hereinafter referred to as the "Product") which Zeneca will use to manufacture into a pesticide known as fomesafen at Zeneca's plant in Mobile, Alabama (the "Zeneca Plant"); and

WHEREAS, Cedar has represented to Zeneca that it has the technology, skill and experience sufficient to manufacture the Product in the Cedar Plant, when modified in accordance with the provisions of this Agreement, utilizing a high yielding nitration process.

NOW THEREFORE, in consideration of the premises and the mutual covenants of the parties hereto as expressed herein, the parties, intending to be legally bound, hereby agree as follows:

1. Purchase and Sale of Product

Subject to the terms and conditions set forth herein, during the term of this Agreement, Cedar shall manufacture for and sell to Zeneca and Zeneca shall purchase from Cedar Zeneca's partial requirements for the Product for Zeneca's use in manufacturing fomesafen at the Zeneca Plant for Zeneca's fomesafen pesticides (said partial requirements being referred to herein as "Zeneca's Requirements"). All Product delivered following the Trial Campaign (as hereinafter defined) shall meet the specifications set forth in Exhibit A or such revised specifications as shall be agreed to by the parties hereto following the Trial Campaign.

2. Quantity, Quality, Plant Modifications & Scheduling

2.1 Beginning on or about January 1, 1996 and continuing thereafter for five (5) successive calendar years, the last such year ending on December 31, 2000, Zeneca shall order and purchase from Cedar and Cedar shall produce and sell to Zeneca not less than the minimum volume of Product each calendar year as set forth below (hereinafter the "Minimum Quantities"):

<u>Calendar Year</u>	<u>Minimum Volume</u> <u>(metric tonnes on 100% ai basis)</u>
1996	130
1997	400
1998	500
1999	500
2000	500

The Minimum Quantities and any binding commitments to purchase under Section 2.4 hereof shall be reduced by the quantity which

Cedar fails to supply as a result of force majeure, as a result of Cedar's breach of this Agreement and/or which does not meet the Specifications (except to the extent such failure to meet Specifications is caused by Zeneca) and is not replaced by Cedar with conforming Product in the applicable year. Cedar shall not be required to supply Zeneca's Requirements in excess of 1,000 metric tonnes (100% a.i.) in any year; provided, however, that Cedar shall use its best efforts to produce additional Product upon request by Zeneca during any year. Cedar shall comply with the quality control sampling and reporting procedures set forth in Exhibit C attached hereto.

2.2 As of the date of this Agreement, Zeneca has estimated the Zeneca Requirements by calendar year on a 100% a.i. basis which estimate is set forth in the attached Exhibit B. The estimates set forth in Exhibit B are non-binding.

2.3 Cedar agrees to implement the modifications to the Cedar Plant described generally in Exhibit D at Zeneca's cost, which the parties estimate will not exceed \$400,000. The parties shall document, approve and attach hereto the final version of Exhibit D including a reasonably detailed estimate of the cost by no later than December 31, 1995, and Cedar shall make its best efforts to complete the said modifications to its Plant and to have the unit in good operating order capable of manufacturing the Product by August 31, 1996. No changes shall be made to the final Exhibit D and to the modification plans without prior written notification to Zeneca. If at the time Exhibit D is finalized on or before December 31, 1995, Zeneca believes the

cost will exceed \$400,000 or believes that the modifications will not render the Cedar Plant capable of manufacturing the Product by August 31, 1996, Zeneca shall have the right to terminate this Agreement by giving Cedar written notice thereof by December 31, 1995. If no such notice is given and the modifications proceed to be implemented, Zeneca shall have no obligation to pay for the cost of modifications in excess of \$400,000 if such excess cost over \$400,000 is for modifications or changes which were not approved by Zeneca in advance or such excess was due to Cedar's negligence or misconduct. Zeneca shall have the right to terminate this Agreement by giving Cedar thirty (30) days prior written notice thereof, if Cedar does not complete the modifications and have the unit in good operating order capable of manufacturing the Product by August 31, 1996 unless such failure was caused by Zeneca's negligence or misconduct. Cedar shall provide Zeneca with reasonably detailed documentation of the costs which it incurs in completing the modifications provided such are covered by the finalized Exhibit D or otherwise have been approved in advance by Zeneca, which costs (the "Modifications Costs") shall be invoiced by Cedar to Zeneca at \$1.00 per kilogram for all Product produced during 1996 and 1997 until the Modification Costs shall have been recovered. If the Modification Costs shall not have been recovered by Cedar by October 1, 1997, as aforesaid, the balance of the Modification Costs shall be due and payable by Zeneca to Cedar by November 1, 1997.

2.4 Beginning on the first day of January, 1996 and quarterly thereafter on the first day of each calendar quarter during the term of this Agreement, Zeneca shall give Cedar its estimated, non-binding rolling forecast of Zeneca's Requirements during the next twelve (12) months by calendar quarter; provided that the Zeneca Requirements for delivery in the first quarter of such twelve month forecast shall be binding. On or before July 31 of each year, Zeneca shall deliver to Cedar its binding written commitment for Zeneca's Requirements during the next calendar year. All Product ordered by Zeneca hereunder shall be produced in not more than two (2) uninterrupted production campaigns in any single calendar year and such production campaigns shall be scheduled at mutually convenient times. Cedar's failure to deliver Product ordered by Zeneca hereunder, as aforesaid, shall entitle Zeneca to source the quantity not delivered elsewhere and to reduce its minimum purchase obligation hereunder accordingly, except to the extent that Cedar's failure to deliver was caused by Zeneca.

2.5 Cedar shall deliver all Product produced hereunder in accordance with Zeneca's delivery instructions, in each case FOB the Cedar Plant. Cedar shall store Product at the Cedar Plant as Zeneca may reasonably request at no additional charge to Zeneca.

2.6 During the term of this Agreement, Cedar will produce Product exclusively for Zeneca, and will not utilize its nitration process to manufacture for any third party or on its own behalf any product intended for use in a pesticide competitive with Zeneca's fomesafen pesticide products.

2.7 The initial production of Product during the initial production campaign of the first year is designated the "Trial Campaign." During the Trial Campaign, Cedar with the assistance of Zeneca, shall use its best efforts to produce Product meeting the Specifications attached hereto as Exhibit A at the target usage rate specified in Section 3.1 of this Agreement. At the conclusion of the Trial Campaign, the parties shall agree in writing on any revisions to Exhibit A and shall adopt a final agreed usage rate for consumption of Intermediate (as defined in Section 3.1) per kilogram of Product (the "Agreed Usage Rate") in each case based on the results achieved during the Trial Campaign.

2.8 Cedar shall use its best efforts to maximize its yield of Product produced from Intermediate supplied by Zeneca, and the parties will endeavor to resolve technical issues. In the event, during the term hereof, Cedar shall fail to meet the Specifications and/or to achieve the Agreed Usage Rate during seven (7) successive nitration batches, Cedar shall immediately notify Zeneca and cease further production of Product until instructed otherwise by Zeneca. In the event that during any calendar year during the term, Cedar shall fail, through no fault of Zeneca, to meet the Specifications and/or to achieve the Agreed Usage Rate in the conversion of 100 or more metric tonnes of Intermediate during such year, then Zeneca upon at least six (6) months notice to Cedar may terminate this Agreement without waiving any other remedies available to it.

3. Supply of Intermediate and Other Raw Materials

3.1 Zeneca shall supply Cedar with sufficient quantities of a manufacturing intermediate known as R118118 meeting the specifications set forth in Exhibit E attached hereto (the "Intermediate") for the production of the quantities of Product ordered by Zeneca. During the Trial Campaign hereunder, the quantities of Intermediate delivered by Zeneca shall be based on the target usage rate of 1.055 kilograms of 100% w/w Intermediate (mol wt 316.5 as free acid) per kilogram of 100% w/w Product (mol wt 361.5 as free acid). Thereafter, the target usage rate shall be replaced with an agreed usage rate which the parties shall determine with reference to results achieved during the Trial Campaign as hereinafter defined. During each production campaign hereunder, Cedar shall provide to Zeneca monthly reports summarizing starting and ending inventories of Intermediate, quantities received and quantities consumed. Title to all Intermediate supplied by Zeneca shall remain in Zeneca until incorporated into finished Product and Cedar shall not pledge or convey any interest in or otherwise encumber such Intermediate. Cedar agrees to execute such UCC-1 financing statements as Zeneca may request for filing in appropriate state and local filing offices to place creditors of Cedar on notice that title to the Intermediate is in Zeneca. Cedar shall keep all Intermediate supplied by Zeneca hereunder physically segregated from other raw materials located at the Cedar Plant and if requested by Zeneca shall indicate Zeneca's ownership thereof by appropriate signage on storage facilities. Cedar shall maintain adequate facilities

for storage of Intermediate at the Cedar Plant. Zeneca shall have the right of access to the Cedar Plant at all reasonable times for the purpose of removing Intermediate stored by Cedar hereunder.

3.2 Cedar shall be responsible for supplying at its cost all other raw materials, labor and utilities required to produce Product hereunder except for the Intermediate to be supplied by Zeneca at its cost as provided in Section 3.1 and except as provided in Section 3.3. Cedar shall manufacture the Product in compliance with all applicable laws and regulations.

3.3 Zeneca shall have the option, exercisable upon reasonable advance notice to Cedar, to supply raw materials which Cedar otherwise is obligated to supply hereunder, at Zeneca's cost. In the event Zeneca supplies any such raw materials, the Manufacturing Fee due Cedar as defined in Section 4.1 shall be reduced by the cost per kilogram which Cedar would otherwise have incurred if Cedar had supplied such raw materials.

3.4 Cedar assumes all liability for loss or damage (a) to Zeneca's Intermediate (and to any other materials furnished by Zeneca, if any) while stored at the Cedar Plant; (b) to Product, while stored at the Cedar Plant, and (c) for the over-consumption of Intermediate or of any other raw materials furnished by Zeneca in excess of agreed usage rates, to the extent applicable, except to the extent that such loss, damage or over-consumption shall have been caused by Zeneca.

4. Manufacturing Fees

4.1 Zeneca agrees to pay Cedar "Manufacturing Fees" for Product delivered hereunder (including product produced during the Trial Campaign whether or not it meets Specifications provided that Cedar must use its best efforts to achieve such Specifications during the trial) during the term hereof as follows on a 100% a.i. basis:

Volume (metric tonnes 100% ai)	Fee (\$1/Kilo)
First 30 26 M [#]	\$12.00 5.45 / #
Next 137 301.4 M [#]	\$ 4.30 1.95 /
Next 736	\$ 4.14
Next 900	\$ 3.76
Next 1000	\$ 3.50
Next 1000	\$ 3.50

(hereinafter the "Manufacturing Fees")

Except as otherwise set forth herein, the Manufacturing Fees shall be accepted by Cedar in full payment hereunder including for all raw materials (other than Intermediate supplied at Zeneca's cost), labor, utilities, process development work, waste disposal costs, applicable taxes (other than any applicable sales and use taxes) and all direct and indirect costs and expenses related to Cedar's manufacture of Product hereunder. The Manufacturing Fees payable hereunder shall be adjusted periodically in accordance with the formula attached hereto as Exhibit F.

4.2 If at the end of any calendar year during the first five (5) years of the term hereof beginning with 1996, Zeneca shall have failed to purchase the quantity of Product specified below (100% a.i. basis) as of December 31 for such year, Zeneca shall pay Cedar within thirty (30) days following the end of such

year a supplemental fee (the "Supplemental Fee") pursuant to the following formula and subject to Section 4.3:

V_1 = Base Volume for calendar year, in metric tonnes (100% ai) from the table below.

V_2 = Actual volume for calendar year, in metric tonnes (100% ai), calculated to three decimal places.

$V_3 = V_2 - V_1$

If V_3 is zero or positive there will be no Supplemental Fee due for that year.

If V_3 is negative, Zeneca will pay Cedar a Supplemental Fee equal to \$2,250/metric tonne x V_3 , provided that Zeneca may use positive values of V_3 from prior years as a credit to offset all or any part of a negative value from the most recent year.

Calendar Year	<u>Base Volume</u>
	<u>Metric Tonnes</u> (100% ai) Purchased as of <u>December 31 of Calendar Year</u>
1996 Trial	30
1996	137
1997	736
1998	900
1999	1,000
2000	1,000

Notwithstanding the foregoing, V_1 (being the Base Volume for a calendar year) shall be reduced by the quantity which Cedar fails to supply as a result of force majeure, as a result of Cedar's breach of this Agreement and/or which does not meet the Specifications (except to the extent such failure to meet Specifications is caused by Zeneca) and is not replaced by Cedar with conforming Product in the applicable year.

4.3 In the event that Zeneca shall notify Cedar of its intent to take less than the capacity of the Cedar Plant for production of Product in any year, Cedar shall be entitled to schedule production of other products in the Cedar Plant during such period provided that Cedar's use of the Cedar Plant shall

not interfere with its obligations to Zeneca under this Agreement. In the event Zeneca provides on July 31 a forecast for the Zeneca Requirements for the following calendar year which is less than the volume set forth as V_1 for such year under Section 4.2, Cedar shall use all reasonable efforts, in cooperation with Zeneca, to schedule production during the next calendar year of other products in the Cedar Plant for such shortfall volume. In this case, the Supplemental Fee shall be reduced on a fair and equitable basis to be mutually agreed at such time.

4.4 At the end of each month during the term of this Agreement, Cedar shall invoice Zeneca for Manufacturing Fees and, where applicable, Supplemental Fees and Modification Cost Fees at the rates specified herein with respect to all quantities of Product produced by Cedar hereunder during such month. All such invoices shall be due and payable by Zeneca within thirty (30) days from date of invoice.

5. Price Protection

5.1 Zeneca shall have the option to notify Cedar if at any time during the term of this Agreement, Zeneca receives a "Third Party Offer" as defined herein. A "Third Party Offer" is a bona fide offer from a third party supplier to sell Zeneca's Requirements for Product for delivery to the Zeneca Plant during the then remaining term of this Agreement or a bona fide offer from a third party supplier to sell fomesafen to Zeneca at pricing which would cause the cost of Zeneca's fomesafen pesticide products produced from such third party Product or the

cost of third party fomesafen to be less than the cost of Zeneca's fomesafen pesticide products produced at the Zeneca Plant from Product produced by Cedar from Intermediate produced and supplied by Zeneca in accordance with this Agreement (using the same costs amounts for the Intermediate for purposes of the price comparisons hereunder). Zeneca's notice shall include Zeneca's calculation of the relative costs, as aforesaid, together with appropriate documentation of Zeneca's production costs for Intermediate. Within thirty (30) days following receipt of such notice, Cedar shall notify Zeneca whether it is willing to revise its Manufacturing Fees hereunder to the extent necessary to make the cost of Zeneca's fomesafen products produced from Product produced hereunder competitive with such competitive offer in an agreed proportion of the total combined Cedar/Zeneca manufacturing costs. If Cedar has notified Zeneca of its willingness to meet such Competitive Offer as described above, the parties shall continue to perform in accordance with the provisions of this Agreement with the exception of such reduction in Manufacturing Fees as shall be required, as aforesaid to the extent of the competitive volume. If Cedar shall decline to meet such competitive offer, Zeneca shall have the right to reduce minimum Product commitments hereunder and associated payments by giving Cedar written notice thereof on or before six months following the date of Zeneca's notice to Cedar, provided that in no event shall Zeneca be relieved of its responsibility to reimburse Cedar's Modification Costs as a result of such early termination.

6. Term of Agreement

6.1 This Agreement shall commence as of the date first above appearing and shall, unless sooner terminated in accordance with the terms hereof, extend through December 31, 2000.

Following the expiration of the initial term of this Agreement on December 31, 2000, this Agreement shall continue in effect from year to year thereafter unless terminated by either party by not less than twenty-four (24) months' prior written notice to the other party effective as of December 31, 2000 or at any time thereafter.

6.2 Either party may terminate this Agreement by reason of any material breach in the terms hereof by the other party by giving the party in default ninety (90) days' written notice thereof, specifying with particularity the condition, act or omission, or course of conduct asserted to constitute the material breach. If during such notice period or such longer period as the parties may agree in writing, the party in default cures the asserted material breach, this Agreement shall not terminate but shall continue in full force and effect as though no notice of termination had been given. If the asserted material breach is not corrected during the applicable period, this Agreement shall terminate effective upon expiration of the ninety-day notice period without further notice unless such period is extended by the non-breaching party.

6.3 Either party may terminate this Agreement immediately upon giving notice to the other if such other party becomes insolvent or commits an act of bankruptcy. In addition, in the

event that either party proposes to assign its rights under this Agreement to a third party in connection with the transfer of all or substantially all of the assets of such party, the transfer of at least 50% of the capital stock of the party to any other entity or third party affiliated group (other than to an affiliate of a party), or the sale of the Cedar Plant, to such third party, such party shall notify the other party to this Agreement at least ten (10) days prior to the effective date of such transfer. In the event the party to this Agreement receiving such notice shall have any reasonable objection to said third-party transferee, such party may terminate this Agreement by written notice thereof delivered within six (6) months after the date of such transfer effective two (2) years from the date notice is given. During such period from the date of transfer to the date of termination as applicable, Cedar or its transferee shall manufacture Product for Zeneca and otherwise perform under the terms and conditions of this Agreement. Cedar agrees to provide a copy of this Agreement to its transferee prior to such transfer and to obtain such transferee's binding written agreement to perform under this Agreement.

7. Warranty

7.1 Cedar warrants title to Product sold hereunder, and that, following the Trial Campaign, such Product shall meet the specifications set forth in Exhibit A, shall be free from contamination that would adversely affect Zeneca's ability to use the Product as contemplated hereunder, and shall be produced in compliance with all applicable federal, state and local laws,

ordinances, rules, regulations and executive orders. EXCEPT AS EXPRESSLY PROVIDED HEREIN, CEDAR MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR AS TO ANY OTHER MATTER.

8. Indemnification

8.1 Cedar agrees to protect, defend and indemnify and save Zeneca harmless from and against any and all claims, demands, or causes of action (a) arising out of Cedar's handling and processing of all raw materials, and intermediates, including the Intermediate supplied by Zeneca; (b) associated with the manufacture of Product hereunder; and/or (c) arising out of Cedar's breach of any warranties or covenants hereunder or out of its willful error or negligence, except to the extent caused by Zeneca.

8.2 Zeneca agrees to protect, defend and indemnify and save Cedar harmless from and against any and all claims, demands, or causes or action arising out of the use, handling, storage or transportation of Product sold by Cedar hereunder after such Product leaves the Cedar Plant for delivery in accordance with Zeneca's instructions, except to the extent caused by Cedar or except to the extent to which Zeneca is entitled to be indemnified by Cedar under Section 8.1 above.

8.3 Cedar agrees to insure its liability under this Agreement by maintaining the following types of insurance with minimum limits as set forth below:

(a) Worker's Compensation - Statutory;

- (b) Employer's Liability (\$1,000,000 per occurrence);
and
- (c) Comprehensive General Liability (including product liability, contractual liability and automobile liability - \$1,000,000 per occurrence).

Cedar shall furnish Zeneca with Certificates of such insurance or upon request of Zeneca true copies of policies showing the above coverages and providing for at least thirty (30) days' prior written notice to Zeneca of cancellation or modification.

9. Safety, Health & Environmental

9.1 Cedar and Zeneca shall comply with all applicable federal, state and local laws and regulations pertaining to their respective activities contemplated by this Agreement. Zeneca shall have the right to review, on an annual basis during the term of this Agreement, each permit and license of Cedar which is related to this Agreement, including but not limited to those required by any regulatory agency having jurisdiction over Cedar.

9.2 In the event of any one of the following related to manufacture of the Product:

- (a) Environmental damage related to this Agreement and any leak, spill, or other release of raw materials supplied by Zeneca, intermediates, effluents, or Product into the environment;
- (b) Accidental exposure of Cedar's employees to raw materials supplied by Zeneca, intermediates or effluents;

- (c) Illness of, or loss of consciousness by, Cedar's employees caused by the manufacture of the Product under this Agreement;
- (d) Injuries of Cedar's employees involved in the manufacture of the Product which require treatment by a medical doctor or first aid unit;
- (e) Fire, explosion, or other unplanned emergency production outage, or property damage; or
- (f) Any other potentially serious occurrence relating to the manufacture of the Product under this Agreement,

Cedar will promptly advise Zeneca by telephone of any such occurrence and actions taken by Cedar to mitigate liability.

9.3 In the event that the Cedar Plant is the subject of an inspection by any duly authorized agency of federal or state government (including but not limited to inspections under the Federal Occupational Safety and Health Act or laws administered by the EPA, the Food and Drug Administration, or the Department of Labor), and the inspection is related to the manufacture of Product, Cedar shall (a) promptly advise Zeneca by telephone of any such occurrence; (b) advise Zeneca of the ingredients or products, quantity, and lot numbers of materials (including any packaging materials), if any, of which samples are taken by such inspector; (c) set aside identical samples from the same lots as those taken by such inspector, for disposition as directed by Zeneca; (d) send Zeneca a written detailed report identifying the inspector, the Agency he represents and a summary of what was

said or occurred during the course of the inspection insofar as same refers to Zeneca's products and business and (e) forward to Zeneca copies of any written reports thereafter received from said inspector or Agency.

9.4 During the term of this Agreement, Cedar will allow Zeneca's employees reasonable access to that portion of the Cedar Plant where Product is being manufactured. Zeneca shall be responsible for assuring that each of its agents and employees visiting the Cedar Plant shall undertake to maintain in strict confidence and not to disclose to third parties any information obtained in connection with such visits relating to Cedar's operations, including Cedar's confidential information pertaining to the manufacture of Product or otherwise identified by Cedar as confidential unless or until such information is in the public domain through no fault of Zeneca or its employees.

10. Technology

10.1 Cedar represents and warrants that it owns the manufacturing and process technology which it will utilize to manufacture the Product and that in so doing it is not infringing the rights of any other party. Cedar agrees to indemnify Zeneca against and to hold it harmless from any claim, demand, or cause of action asserted or brought by a third party alleging any such infringement of such third party's patent or any intellectual property or other rights by Cedar in the performance of its obligations hereunder. Cedar shall promptly notify Zeneca of any such claim, demand, cause of action or lawsuit and shall cooperate with Zeneca in Zeneca's defense thereof.

10.2 Cedar grants to Zeneca a royalty free, non-exclusive license with the right to sublicense to use the manufacturing and process technology, and know-how used by Cedar hereunder to manufacture the Product, which license may be exercised by Zeneca upon notice to Cedar in the event that this Agreement is terminated by Zeneca as a result of Cedar's breach of its obligations hereunder; or this Agreement is terminated pursuant to Section 6.3 hereof; or Cedar fails to supply as a result of force majeure pursuant to Section 12 hereof.

10.3 Cedar grants to Zeneca a royalty free, non-exclusive license with the right to sublicense to use the manufacturing and process technology, and know-how used by Cedar hereunder to manufacture the Product following the expiration of the full term of this Agreement including any renewal term, which license shall be automatically exercised by Zeneca unless Zeneca declines to exercise such license by notice to Cedar within ninety (90) days following such expiration of this Agreement.

10.4 Any such license under Sections 10.2 or 10.3 shall be in effect for a period of three (3) years commencing on the effective date of such termination or in the event of failure to supply for force majeure under Section 12, for such period of force majeure. In such event, Cedar will provide Zeneca with all information and assistance necessary for Zeneca to use the technology and operate under the license, including without limitation a written description of the manufacturing and process technology.

11. Confidentiality

The parties to this Agreement have entered into a Confidentiality Agreement dated October 27, 1994, the terms of which are referred to herein and incorporated by reference. The provisions of said Confidentiality Agreement shall survive terminate of this Agreement.

12. Force Majeure

Each of the parties hereto shall be excused from performing obligations hereunder which are prevented or impeded due to reasons beyond the reasonable control of the party claiming such excuse, provided that prompt notice thereof be given to the other party, and provided further that prompt and reasonable efforts are made to overcome such event or condition causing such inability to perform. During such period of force majeure, Zeneca shall be entitled to source fomesafen and/or Product from third parties or from its own facilities which shall reduce its obligations to purchase hereunder under Section 2.1 and shall be counted as though purchased hereunder for purposes of calculating the Manufacturing Fees and Supplemental Fees. If such event of force majeure continues for a period of six months, Zeneca shall have the right to terminate this Agreement by delivering written notice thereof to Cedar.

13. Foreign Trade Zone

Cedar will use its best efforts to have the Cedar Plant designated as a foreign trade zone by the U.S. Department of Commerce Foreign Trade Zones Board and the U.S. Customs Service.

14. Applicable Law

This Agreement shall be construed and interpreted in accordance with the laws of the State of Delaware.

15. Notices

Any notice required hereunder shall be mailed, postage prepaid, by registered or certified mail, return receipt requested, or by overnight courier service, in either case with a copy transmitted by same day facsimile transmission, addressed to the receiving party at the following address:

For Cedar: Cedar Chemical Corporation
24th Floor, Clark Tower
5100 Poplar Avenue
Memphis, Tennessee 38137
Attention: Vice President
Custom Manufacturing

For Zeneca: Zeneca Inc., Ag Products
1800 Concord Pike
P. O. Box 15458
Wilmington, Delaware 19850-5458
Attention: Director of Purchasing

Either party may by notice to the other, change its address for receiving such notice.

16. Non-Assignability

This Agreement shall not be assignable directly or indirectly, by operation of law or otherwise, without the written consent of the non-assigning party, which consent shall not be unreasonably withheld or delayed.

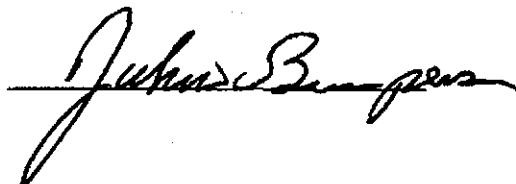
17. Binding Effect

This Agreement when duly executed on behalf of the parties hereto and approved by the parties' respective Boards of Directors or other management approval as required by such party (by not later than September 30, 1995) shall be binding upon the

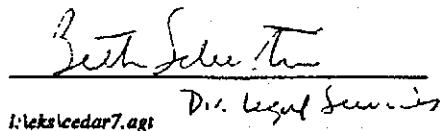
parties, their successors and duly authorized assigns. This Agreement is conditioned upon approval by each party's respective Board of Directors or management in their discretion, and if such approval is not obtained by September 30, 1995, either party may terminate this Agreement by delivering written notice thereof to the other party. If this Agreement is approved by Cedar's Board of Directors by September 30, 1995 but is not approved by Zeneca's Board or other management by such date and Cedar elects to terminate this Agreement, Zeneca shall reimburse Cedar for its reasonable development costs incurred in connection with the acifluorfen technology development work up to \$100,000. This Agreement replaces and supersedes all other agreements and understandings between the parties with respect to the sale of Product by Cedar to Zeneca.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers on the day and year first above written.

ATTEST:

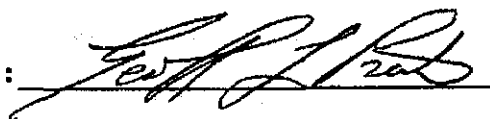


ATTEST:



1:\eks\cedar7.agt Div. Legal Services

CEDAR CHEMICAL CORPORATION

BY: 

ZENECA INC.

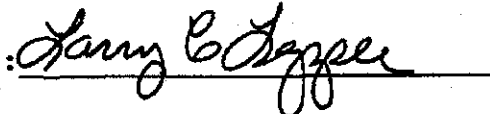
BY: 

EXHIBIT A

Acifluorfen Acid Sodium Salt Solution Specification

Strength	38-42% w/w as Acifluorfen Acid (MWT 361.5)
R118118	0.5% w/w Max (MWT 316.5) (Target 0.25%)
2' - Nitro	4% w/w Max (MWT 361.5)
Dinitro Impurities	1.5% w/w Max total
Sodium Acetate	2% Max (MWT 60) (Target 1%)
Dichloroethane	100 ppm Max
Iron	10 ppm Max
pH	7.5 - 9.5

EXHIBIT B

ESTIMATED NON-BINDING ZENECA REQUIREMENTS

**ESTIMATED NON-BINDING
ZENECA REQUIREMENTS**

<u>Calendar Year</u>	<u>Volume (metric tonnes on 100% ai basis)</u>
1996 Trial	30
1996	137
1997	736
1998	900
1999	1000
2000	1000

EXHIBIT C

QUALITY CONTROL, SAMPLING AND REPORTING

1) NOTIFICATION OF RECEIPTS, SHIPMENTS AND INVENTORY

Cedar shall promptly notify Zeneca of each shipment of Product. This shall show date of shipment, total weight of Product, % Active Ingredient. This shall be accomplished by Faxing copies of the Bill of Lading and the Certificate of Analysis (COA) for each shipment of Product to QC Laboratory Supervisor, Cold Creek Plant.

Zeneca shall promptly notify Cedar of each shipment of R118118. This shall show date of shipment, total weight of Product, % Active Ingredient. This shall be accomplished by faxing copies of the Bill of Lading and the Certificate of Analysis (COA) for each shipment of R118118 to the Purchasing and Logistics Manager at Cedar's West Helena, AR plant.

Cedar shall provide a written statement to Zeneca within 5 working days of the close of each month, showing receipts of R118118 and any other materials supplied by Zeneca, usages and current inventories of these Zeneca supplied materials, and output of Product including any work in progress.

2) SAMPLING AND ANALYSIS OF PRODUCTS

Cedar shall take, analyze and retain a representative sample of each production batch and each shipment of Product. The Product shall be analyzed in accordance with procedures to be agreed between Cedar and Zeneca and compared against specifications set forth in Exhibit A. The amount of sample retained should be approximately four (4) oz. and shall be kept at Cedar for a period of three years, after which they shall be properly disposed of at Cedar's expense.

A Certificate of Analysis (COA) shall accompany each shipment of the Product. In the event of a difference between the COA and analysis performed by Zeneca using the same methods for the same shipment, Cedar and Zeneca will endeavor to resolve the discrepancies by such means as exchanging portions of samples and cross checking test methods. In the event that an agreement cannot be reached, an independent laboratory shall be commissioned to perform the analyses in question and their results shall be accepted to resolve the differences. The costs shall be mutually borne by Zeneca and Cedar.

Any dispute on analysis shall not prejudice payment of any due invoices, but Cedar will immediately credit or debit Zeneca for any differences in the amount of Product when the dispute has been resolved.

3) RETURN/REWORK OF PRODUCT

Cedar and Zeneca shall endeavor to minimize costs associated with reworking or blending any material not meeting the specifications itemized in Exhibit A. On occasion of having material not meeting specifications, both parties will promptly discuss the situation. Where no final concession agreement can be reached, Cedar will promptly have the material in question returned to its plant at no cost to Zeneca. A credit will then be issued to Zeneca in compensation for said material. Final disposition of this material will be at Cedar's discretion and expense.

EXHIBIT D

Plant Modifications and Estimate

The scope of the plant modifications is estimated to include raw materials handling facilities for R118118, acetic anhydride and nitric acid in addition to pipework modification, to Unit 4. Equipment list attached.